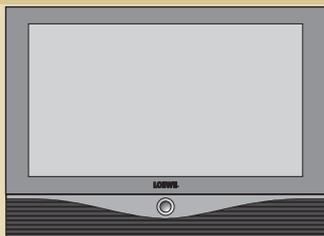


# Operating Instructions.



- Spheros 42 HD
- Spheros 42 HD/DR+

TV.



233-31936.021

# LOEWE.

# Contents

|   |              |  |              |                              |              |
|---|--------------|--|--------------|------------------------------|--------------|
| <b>Remote operation – TV functions</b>  | <b>3</b>     | Radio mode   | 16           | <b>Available accessories</b> | <b>33</b>    |
| <b>Connections Signal Box</b>   | <b>4</b>     | Teletext mode  | 17           | <b>Secret code</b>           | <b>33</b>    |
| <b>Operation on the Signal Box</b>  | <b>5</b>     | <b>LOEWE Dialog</b>  | <b>18</b>    | <b>Service addresses</b>     | <b>34</b>    |
| <b>Setup</b>  | <b>6-7</b>   | <b>Operation of additional equipment</b>   | <b>19-27</b> | <b>Codelist</b>              | <b>35-41</b> |
| Installation possibilities  | 6            | Video mode   | 19           |                              |              |
| For your safety...  | 6-7          | Logging in equipment   | 20           |                              |              |
| Tilting Spheros wall unit   | 7            | Connecting VCR equipment   | 20           |                              |              |
| Please note   | 7            | Search for and store the VCR station   | 20           |                              |              |
| Setup and cleaning  | 7            | Video playback   | 21           |                              |              |
| <b>Initial installation</b>   | <b>8</b>     | Calling an AV program in the<br>AV selection list  | 21           |                              |              |
| Batteries   | 8            | IR-Link  | 21           |                              |              |
| Connection  | 8            | DVD player   | 22           |                              |              |
| Switching on  | 8            | Digital output   | 22           |                              |              |
| <b>Daily handling</b>   | <b>9-12</b>  | Digital input/output   | 22           |                              |              |
| Menu functions in TV  | 9            | Connecting Loewe sound systems   | 23           |                              |              |
| Rotating the TV set   | 9            | Converting the remote control in order to<br>operate a Loewe DVD player or devices<br>from other manufacturers | 24-25        |                              |              |
| Remote control RC3  | 10           | <b>Loewe sound systems Certos /<br/>Concertos and Spheros</b>  | <b>26-27</b> |                              |              |
| TV equipment  | 10           | <b>Viewing angle range of rotation</b>   | <b>28</b>    |                              |              |
| Use the drive buttons in TV- and STB position<br>for VCR, DVD or Digital Recorder | 10           | <b>Displaying PC images</b>  | <b>29</b>    |                              |              |
| Switching on/off  | 10           | Connecting personal computers  | 29           |                              |              |
| Changing channels   | 11           | <b>What to do when ...</b>   | <b>30-31</b> |                              |              |
| General menu operation  | 12           | <b>Technical data</b>  | <b>32</b>    |                              |              |
| Adjusting the sound   | 12           |  |              |                              |              |
| Adjusting the picture   | 12           |  |              |                              |              |
| Operation on the TV set   | 12           |  |              |                              |              |
| <b>Modes of operation</b>   | <b>13-17</b> |  |              |                              |              |
| TV mode   | 13           |  |              |                              |              |
| Picture in Picture (PIP)  | 14           |  |              |                              |              |
| EPG mode  | 15           |  |              |                              |              |

## Dear Customer,

Congratulations on your purchase of this high quality Loewe television. Loewe stands for innovative design, excellent quality and exceptional functionality. To ensure that your product retains these properties for as long as possible, please follow the operating and safety instructions contained in this manual.

This instruction manual will help you to get started.

Your Loewe Team



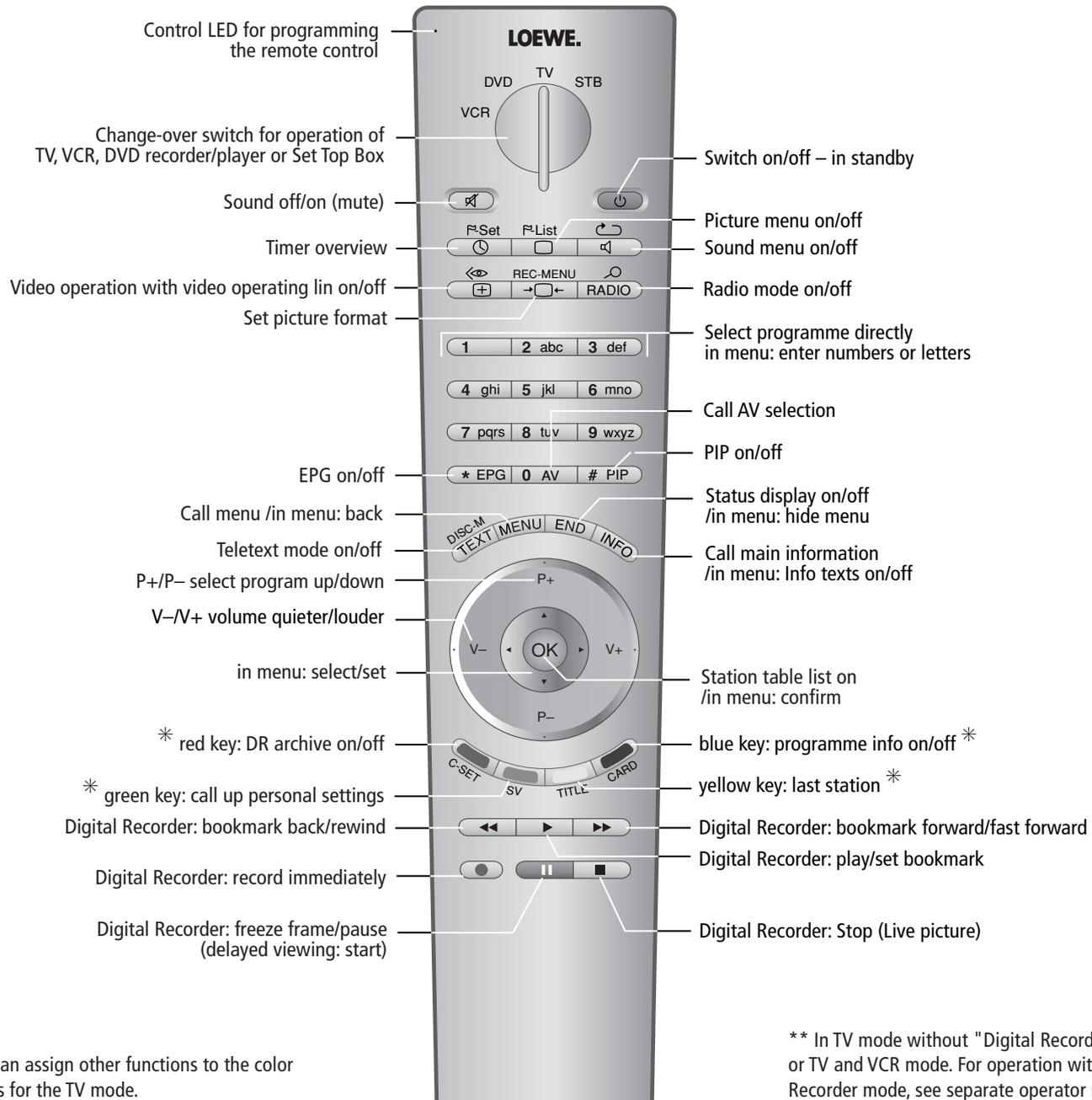
Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

## dts

Is a registered trademark of Digital Theater Systems Inc.

Acoustimass® is a registered trademark of the Bose Corporation.

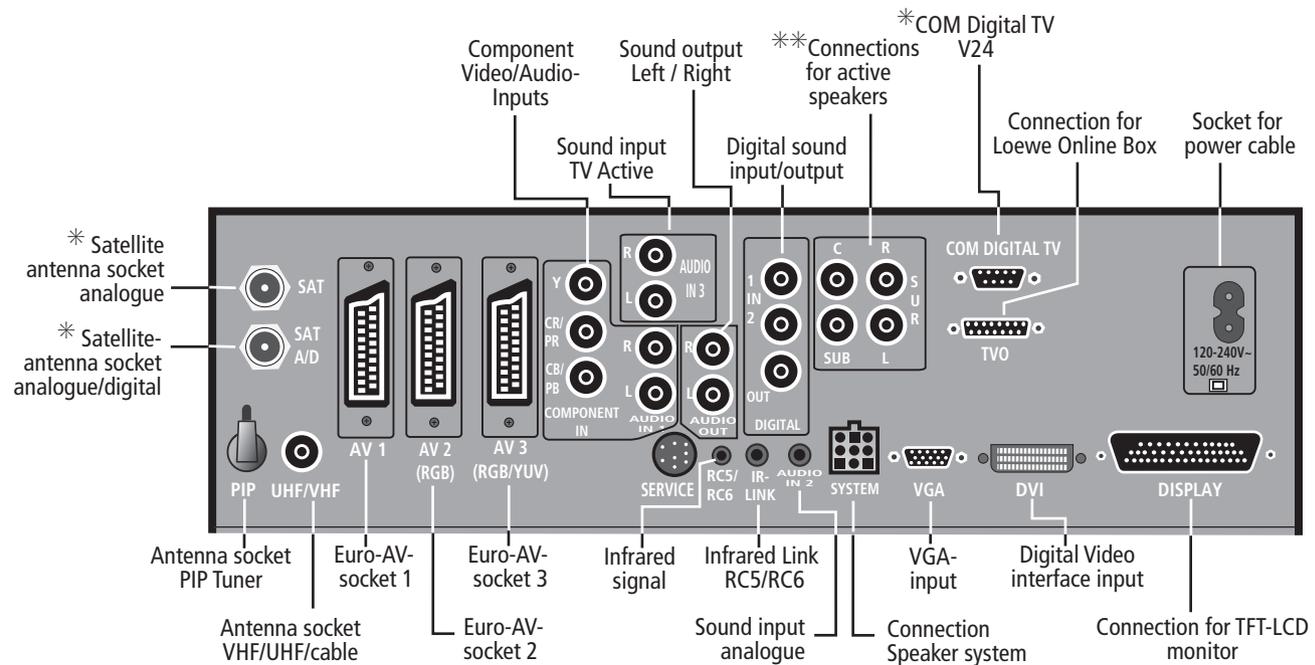
# Remote operation – TV functions



\* You can assign other functions to the color keys for the TV mode.

\*\* In TV mode without "Digital Recorder Plus" or TV and VCR mode. For operation with Digital Recorder mode, see separate operator manual.

# Connections Signal Box



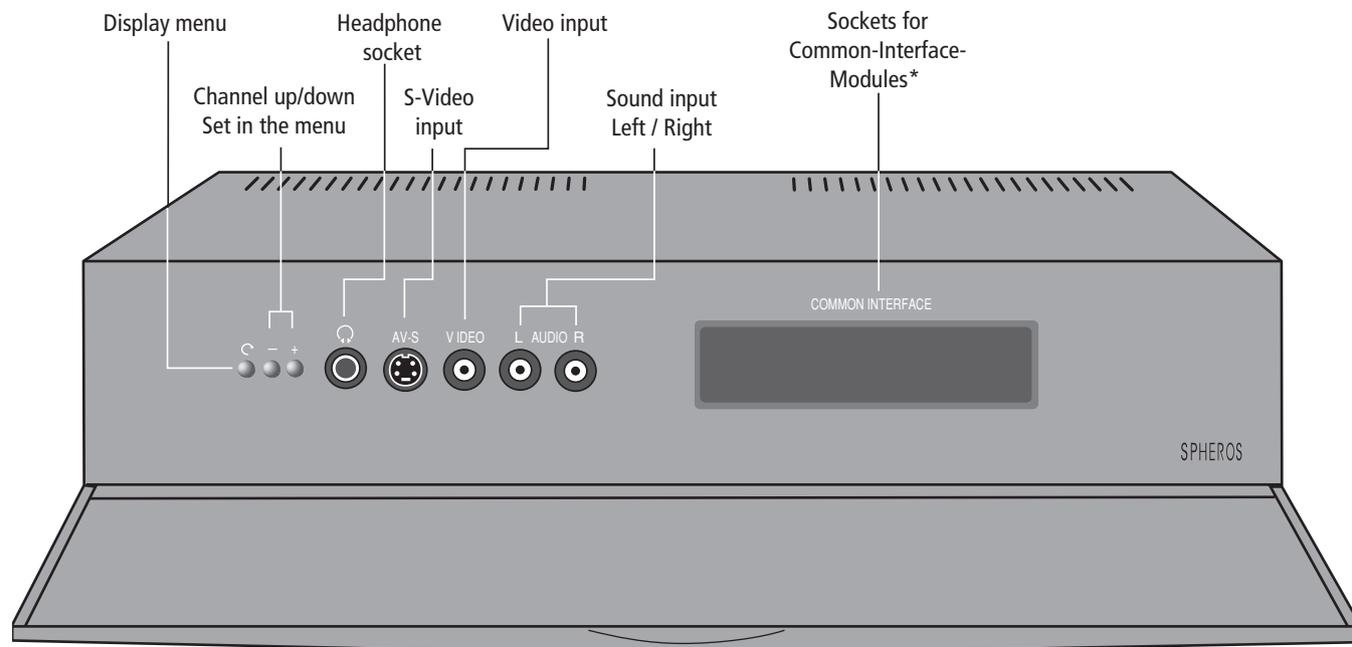
\* Only with upgrade "Digital-TV upgrade kit 2 Sat/Twin-Sat CI" or CIP

\*\* Only with upgrade with Dolby Digital (AC3)

Note: For optimum picture resolution use the "Digital Visual Interface Input DVI"

Only connecting cables less than 2 meters long.

# Operation on the signal box



\* Only with upgrade "Digital-TV upgrade kit 2 Sat/Twin-Sat CI" or CIP

# Setup

## Installation possibilities

The Spheros comes in several design versions:

- **The Standing unit**  
Swiveling bass booster as well as a subwoofer integrated with a stand.
- **The desk unit**  
You can easily align the stand/desk unit by controlling its motor drive by means of the remote control.
- **The Wall unit**, which you can hang on the wall, just like a picture. You can tilt the flat panel screen (Plasma display) within a range of 0 to 12°.
- **Spheros Plasma screen and Rack System Cube 1/2 Spheros 42 HD Wallmount**  
With motor drive for rotating the plasma screen and drawers for the Signal Box and video recorder, DVD player etc.

You can connect add-on devices, such as video recorder, DVD player, Pay-TV decoder, Loewe sound systems, a Loewe OnlinePlus-Box or a Multimedia kit to the Spheros Signal Box.

### Operation

We have designed the TV set in such a way that it is easy to operate with menus. If you need information on operating the set, simply press the **i** key on the remote control to display the help texts, which will quickly enable you to understand the system.

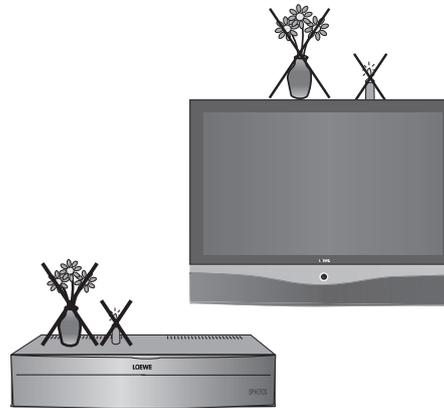
If it is a matter of operating the TV, you can access a function directly from the index. This saves you from having to read through detailed operating instructions and is the reason, why this operating manual only explains the most important operating steps.

## For your safety...

For your own safety and to avoid any unnecessary damage to your unit, please protect it from...

- humidity, water sprays and droplets
- impacts and mechanical stresses
- cold, heat and heavy temperature variations
- dust
- cover allowing poor ventilation
- intervention inside the unit

Do not place vases filled with water, lighted candles etc. on the top of the TV set.



If you have brought the unit from a cold environment into a warm room, let it remain switched off for about an hour, as condensation may form on the set.

Take the swivel range into account when positioning a TV set with rotary motor unit and do not place any objects such as flower vases etc. in this area.

**Lightning strikes may damage your TV set through the antenna and the mains power circuit. Pull out the antenna and mains plugs from their respective connecting sockets during bad weather and long periods of absence.**

## Transport the TV set only in vertical position.

- Avoid metal parts, needles, paper clips, liquids, wax or similar dropping inside the TV set through the air venting slits in the rear panel or cover. This can lead to short-circuits and possibly to fire. If something should get into the set switch it off immediately at the on/off switch, pull out the power plug and notify the after-sales service for inspection.
- The TV power plug must be easily accessible so that the TV can be disconnected from the power supply at all times.
- Lay the power cable so that it cannot be damaged. The power cable may not be kinked or laid over sharp edges, not stood on and not exposed to chemicals, the latter also applies to the device as a whole. A power cable with damaged insulation can lead to electric shocks and is a fire risk.
- When removing the power plug, pull the plug housing and not the cable. The wires in the plug could be damaged and cause a short circuit the next time it is plugged in.
- Your new TV has been built exclusively for use in a home environment. The warranty covers this normal use of the device.
- Only have repairs done by the Loewe Service.

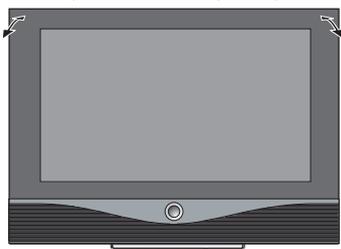
# Setup

## For your safety...

The wall holder is designed to include the weight of the wall unit / plasma screen. So, avoid any additional load on it through persons, playing children or objects. Instruct children, in particular, about the danger of excessive load on the plasma screens, the wall holders or the stands.

## Tilting Spheros wall unit

You can tilt the flat panel screen (Plasma display) within a range of 0 to 12° by using a wall holder.



Keep the button under the wall holder pressed. Tilt the flat panel screen with the other hand into the desired position, then let go of the button. The angle of tilt is retained.

## Caution: Risk of injury!

If you wish to tilt the flap screen again, do not touch the mechanism of the wall holder!

## Please note!

The plasma screen of the Loewe Spheros has the modern image format 16:9 and is conceived for displaying moving images. The entire screen is utilized while displaying the picture in the format 16:9. **As far as possible, avoid displaying the image in the format 4:3 over a longer period (some weeks), because then only the central portions of the screen surface are used,**

showing dark strips to the right and left of the image.

Select an image that fills up as much of the screen area as possible, e.g. "Panorama". This way, you can prevent formation of different contrast areas on the screen. If upper or lower portions of the image are visible only partially in this format, use the option "Shift image vertically"; refer to page 10 Image Menu.

**Display of TV images or static images / text pages from a computer through the VGA/ DVI connection over a long time (over 10 minutes) should also be avoided; otherwise the image contours can remain static on the screen even on switching the monitor off.**

The **DRM** (Digital Refresh Mode) function in this unit can eliminate or reduce such weakly visible effects.

**Effects, remnants of excessively long static image display, cannot be reversed even with the help of DRM.**

## Function Digital Recorder DR

Your Loewe TV set is equipped with a Digital Recorder. This can be used like a VCR to record and play picture and sound of TV programs. Please read the enclosed "Digital RecorderPlus" operator manual to find out how to operate it.

## Note

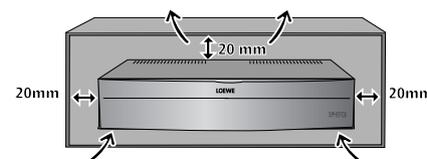
The screen you have purchased meets the highest quality requirements in this sector and has been tested for pixel errors. Despite the utmost caution in production of the display, it cannot be totally ruled out that some of the pixels might be defective for technological reasons.

Please understand that such effects cannot be considered as a unit defect in the sense of the warranty as long as they are within the limits specified by the standard.

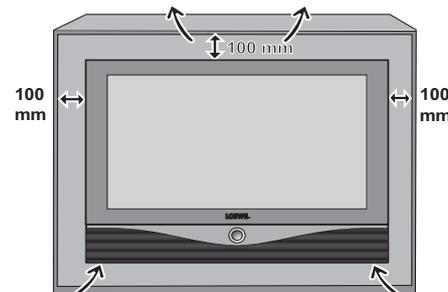
## Setup and cleaning

A detailed setting up and assembly instruction accompanies every Spheros wall/desk and stand unit.

- Set up the Spheros Signal Box and the screen with sufficient space for ventilation. The openings for ventilation must not be covered with objects, such as magazines, tableclothes, curtains etc.



- Place the Signal Box not on its side, but always on its feet.



- Make sure that the screen is not exposed to bright light or sunlight, otherwise it creates reflections and the brilliance of the screen is lost.

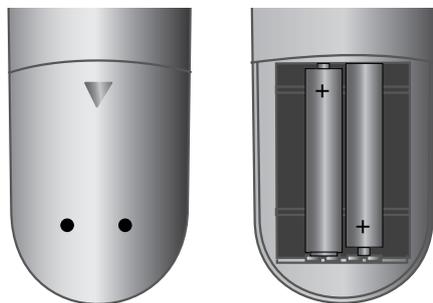
Clean the glass plate of the screen only with a soft piece of cloth.

Also clean the other components of the system, such as the Signal Box and remote control, only using a soft moist piece of cloth (without any strong or scouring agents).

# Initial installation

## Batteries

To insert or change the batteries, press the point marked by an embossed arrow. Push the cover of the battery compartment down and remove it. Insert the batteries of the alkaline manganese type LR 03 (AAA) with the correct polarity (+/-).



Then push the cover back on.

### Note on disposal of batteries:



The original batteries do not contain any pollutants such as cadmium, lead and mercury. Used batteries do not belong in the domestic waste. They must be taken to the appropriate collection points according to the national laws. Ask your dealer.

## Connection

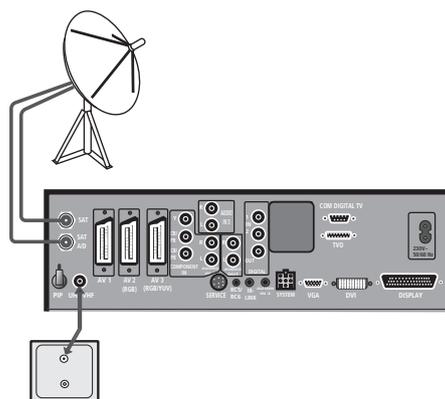
### Mains

Connect the TV set to a 230V/50-60 Hertz outlet.

### Antenna

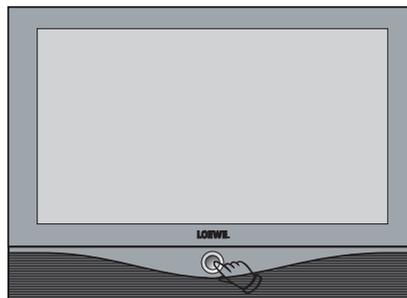
Connect your antenna or cable system to the antenna socket to the UHF/VHF antenna socket on the back of the signal box.

When equipped with a satellite tuner, connect the satellite antenna to the SAT sockets.



## Switching on

Press the On/Off button so that it is pressed in.



## Initial installation

Automatic programming of the TV set is started the first time you switch it on. Follow the menus.

First you have to select the menu language for your set. Then you specify which antenna you have connected to your TV and in what country you are using it. Then you start the station search. The TV set searches for, stores and sorts all the stations which your antenna system receives. You then see a list of the stored stations in which you can mark your favorites. Finally log in your video recorders, decoders, Loewe audio system and Home Automation with the connection wizard and connect these to the TV set according to the illustrated connection plan.



Select the settings with the arrows on the ring ...



... confirm the settings with **OK**. You then move on to the next menu ...



... press this button if you want information about the settings.

You can repeat initial installation at any time, e.g. after moving house. Call the index in the main information (i button). Then select the item "Repeat initial installation". Then start "Initial installation" with **OK**.

# Daily handling

## Menu functions in TV

### EPG

Call the electronic program guide of the TV set. EPG can be called and hidden with the  button.

### PIP

Call/hide the picture in picture function of the TV set. PIP can be called and hidden with the  button.

### TV radio (SAT radio)

Switch the radio mode of the TV set on/off with  button. Prerequisite: Your TV is equipped with a satellite tuner (see on page 16).

### Video

Call or hide the video control bar. Press the button .

### Format

Call the selection for setting the picture format. Select the picture format by repeated pressing of the  button.

### AV input

Call the AV selection for playing connected equipment (e.g. VCR, camcorder or DVD player). The AV selection can be made with the  button.

### Picture

Show/hide the picture menu. Press the button . You can set the TV picture with the help of the picture menu. The Picture menu can also be called by the TV menu ' Picture.

### Sound

Show/hide the Sound menu. You can set the TV sound with the Sound menu. The Sound menu can be opened under the "TV menu – Sound". On the **RC3** remote control also directly with the  button.

### Sound mode

Call the sound mode settings of the connected Loewe DVD-Preceiver "Auro". Press the button .

### Timer

Call the timer overview of the TV set. Press the button .

### Digital Recorder Plus (DR+)

If a hard disk is integrated in the Signal Box (set variant), you can record and play TV programs. Depending on the selected recording quality the possible recording capacity is between about 20 and 100 hours.

The possibilities of the Digital Recorder are much more versatile than those of a video recorder. Use the separate "Digital Recorder Plus" operating manual for operation.

## Rotating the TV set

(only when equipped with "Motor Unit")



Launch the TV menu: Press **MENU** on the remote control.



Select the "Rotate TV" bar.



Using the arrows on the circular pad you can set the rotation direction to go right, to stop or to go left.



Close the menu.

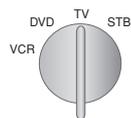
### Note:

Do not place any objects in the range of rotation of the TV set which could obstruct rotation or be knocked over in the process. Before activating the rotary function, make sure that the set can rotate freely and unhindered. You will find further setting possibilities on page 28.

# Daily handling

## Remote control RC3

Remote control for operating different Loewe units.



Operating the TV:  
Set the rotary switch to "TV".

Ex-factory settings are: Loewe video recorder, Loewe DVD recorder and for STB (Set Top Box) the d-box common in Germany.

The remote control must be switched for operating a Loewe DVD player.

## TV equipment

Functions marked by \* are not available in all types of TV sets but can usually be retrofitted. Ask your dealer if you are interested.

Menu contents may differ from the ones shown depending on your TV equipment.

Operation of the "Digital Recorder", if available, are described in a separate operating manual.



You can show your TV equipment by pressing the **INFO** button on the remote control.



Select the "Equipment" line in the "Main information" menu.



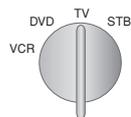
Press the **OK** button.



Hide the menu again with the **END** button.

## Use the drive buttons in TV- and STB position for VCR, DVD or Digital Recorder

You can switch over the six drive buttons both for TV and STB for operating a VCR or DVD player/recorder. Operation of the built-in Digital Recorder Plus is specified ex-factory.



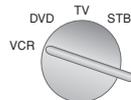
First turn the switch to the main function TV or STB.



Press the **END** and **\* EPG** buttons at the same time (5 secs). The display at the top left of the remote control flashes twice.



Enter the numbers 988 one after the other. The display again flashes twice.



Now turn the switch to the required function for the drive buttons. DVD, VCR or TV if the Digital Recorder is to be used.



Press the **# PIP** button to complete the setting. The display flashes twice.

The setting is saved.

## Switching on/off

Your TV set is equipped with an economy standby power supply unit. On standby the power consumption drops to low power. If you want to save even more electricity, switch the set off at the On/Off switch (Signal Box). But remember that EPG data will then be lost and timed recordings will not be made.



When the TV is switched on, you can switch it to standby with the blue on/off button. The red standby indicator on the set

lights up. If the green indicator is also alight a timer recording on the VCR is in progress, EPG data input is taking place or radio mode without on-screen display is active.



From standby it is best to switch back on with the blue On/Off button or with a numeric key (station 0-9). The green (blue) operating LED then lights up.

When you switch on the TV with **OK**, you see the station table and can choose a station.



None of the indicators lights up when you switch off the TV set with the On/Off button on the set.

Switch on the TV set with the On/Off button  on the set when it is switched off.

# Daily handling

## Changing channels



Channels up/down (only favorite stations if these are shown in the station table).

With the numeric keys on the remote control The set has a dynamic memory with 220 (with DVB 1470) memory slots. If up to 9 stations are stored, you only need to enter one number, up to 99 two numbers, up to 999 three numbers and above 999 four numbers (please look in the station table to find out how many stations have been stored).

### 1-digit stations



Keep the button 0 - 9 pressed for one second, the channel then changes immediately, or press the button 0 - 9 briefly, the channel then changes after 2 seconds (immediately when up to 9 stations are stored).

### 2-digit stations



Keep the second numeric key pressed for one second, the channel then changes immediately, or press both numeric keys briefly, the channel then changes after 2 seconds (immediately when up to 99 stations are stored).

### 3-digit stations



Keep the third numeric key pressed for one second, the channel then changes immediately, or press the three numeric keys briefly, the channel then changes after 2 seconds (immediately when up to 999 stations are stored).

### 4-digit stations



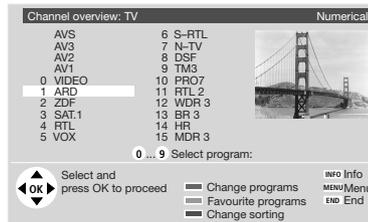
Press the four numeric keys briefly, the channel then changes immediately.

Depending on how many stations have been stored, you can place one or more zeros in front of the number and select for example station 7 = 07 or 007 or 0007.

### With the station table



Call the station table with **OK** Station table TV



Mark the station (the marked station is shown in the PIP pictures)

or

Mark with numeric keys



Call the marked station

Sort alphabetically/numerically (blue button)



Show favorites only (yellow button), selectable in the "TV Menu-Programs".

### Call Audio/Video programs - AV selection



for playing AV equipment.



Select AV connection (jack) or VIDEO for VCR station.

# Daily handling

## General menu operation

With the TV and picture menus, we show you how to navigate within the menus. Which buttons you can use for operation is shown at the bottom of the appropriate menu.

**TV menu**

- MENU** Call the TV menu
- OK** Mark (white field)
- OK** Call the menu with **OK** or
- OK** **▶**

**Picture**

- Grey menu items cannot be selected
- OK** Set (setting value and bar)
- OK** Mark other menu items
- OK** Select (frame)
- INFO** Show/hide info texts
- MENU** Back to the previous menu level
- END** Hide all menus

**INFO** Info Info  
MENU Back  
END End

**INFO** i DNC (Digital Noise Control)  
With DNC you can eliminate or reduce picture interference, e.g. due to poor reception.

## Adjusting the sound

### Adjusting the volume

**Adjust the volume**

other ...  
Volume 36

with "others ..." you can select and ...

Listening mode [Stereo] Panorama Dolby Virtual  
Loudness  
Sound adjust  
Volume

... set other sound settings.

### Mute

**Mute**

Sound off; Sound on: press button again or adjust volume. The status is displayed briefly on screen.

### Other sound settings:

**TV menu**

- MENU** Call TV menu
- OK** Mark "Sound"
- OK** Call sound functions
- OK** Mark sound function
- OK** Set/select

**Sound**

- Sound via
- Listening mode [Stereo] Panorama Dolby Virtual
- Sound adjust
- Treble
- Bass
- Loudness
- other ...

**INFO** Info Info  
MENU Back  
END End

Sound settings: Sound via the loudspeakers of the TV set or another system. Listening mode Stereo/Panorama/Dolby Virtual. Sound adaptation, treble, bass and balance. Sound select for loudspeakers and headphones, AV

output sound. Volume of the headphones, automatic volume and max. volume.

## Adjusting the picture

**TV menu**

- MENU** Call the TV menu
- OK** Mark "Picture"
- OK** Call picture functions

**Picture**

- OK** Mark picture function
- OK** Set/select

**Picture**

- Contrast
- Picture adjustment
- Colour 32
- Brightness
- Picture vert.
- Sharpness
- other ...

### Select picture settings

Picture settings: Contrast, Picture adaptation, Colour, Brightness, Vertical (not for 16:9 or 4:3), Focus, Tint (only for NTSC), Picture format, Noise reduction (DNC), Movement compensation (DMI) and automatic picture size adaptation (AMD), DRM.

## Operation on the TV set

### Changing channels on the TV set

**+** Channel up

**-** Channel down

### Volume, contrast and color

**OK** Press the function button until the desired function is marked

**+** More volume, contrast or color

**-** Less volume, contrast or color

# Modes of operation

## TV mode

In initial installation and daily operation, the TV set is in TV mode. This is also the case when none of the other modes of operation such as EPG, Teletext, PIP, Video or Radio is selected. Every one of these modes of operation has a menu which you can call with the **MENU**-button and with some color button assignments.

### Function of the color buttons in TV mode

You can assign the functions of the four color buttons yourself. The following functions are set at the factory:

-  red: personal teletext page (with DR+: call DR archive)
-  green: call picture format setting (with DR+: call timer overview)
-  yellow: call last viewed station
-  blue: call station info

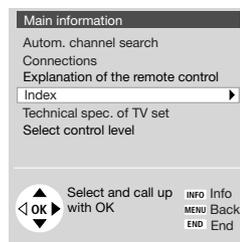
You can assign other functions to the buttons in the TV menu "Settings" - "Function keys".

### Status display

-  Show/hide status

### Main information

-  Call main information



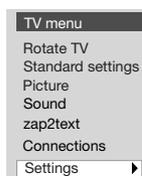
The **explanation of the remote control** shows the function of every button in different modes of operation of the TV set and the remote control.

The **index** answers many questions regarding all aspects of the TV. If it is a question about the operation, you have direct access to the operating function from the index. Loewe TV sets are supplied in different models with different equipment. You can find out what equipment your TV has under the menu item "**Technical spec. of the TV set**". When you have made all the settings and connections, you can switch over to "**Simplified control**" (not in digital TV) using "Select Mode". Then the "Settings" and "Connections" can no longer be launched in all modes of operation menus. Switch "Simplified control" back off when you want to make settings.

### TV menu



Launch the TV menu



### Standard values

You can save the setting for picture and sound you have made in this menu and launch them again later.

### Connections

You will find information about this in the chapter "Logging in and connecting AV equipment" on page 20.

### zap2text

Some stations use this service. If teletext pages are referred to during a program, the TV set saves and/or displays this page number. You

call the teletext page with the **TEXT** button from the display during the program or from this menu.

Some **settings** in the TV menu:

### Child lock

Use the child lock if you want to prevent your children watching after a certain time, once or daily, all or certain programs.

### On-screen displays

You can define duration and position of the displays, the content of the program and status display and activate or deactivate zap2text as a display.

### Timer functions

You can have your TV switch on and off at specific times or have yourself reminded by a signal tone.

### Time and date

When you receive teletext, the TV records the right date and time settings. The time serves as information for timer recordings, timer functions and EPG. If you do not receive teletext you should set the date and time and not switch the TV off with the mains button as the settings will then be lost (Not all stations transmit the full date, you may have to add missing data manually).

### Language

If "your" menu language is not set, you have to select the "Language" menu in a language you cannot understand:

Press the **MENU**-button (TV menu), mark the last menu item (settings), press the **OK** button and mark the last menu item (Language) under "other ..." and press the **OK** button.

Now select the right language and confirm with **OK**.

# Modes of operation

## Picture in Picture (PIP)

PIP can be displayed as Standard PIP, iPIP or Split Screen by default.

### Standard PIP functions:

The Standard PIP displays a PIP image in the presently displayed TV image.

# PIP Show/hide PIP picture

The status of the PIP mode i.e. PIP channel selection or PIP scan is shown in the status display in a colored square before the channel name and appears while changing the channel or on pressing the **END** key.



If the PIP status is green, you can select the PIP channel:



Channel up/down or direct

### PIP image as static image



The PIP status must be green. If it is not, press the green button.



Then press the red button; the PIP image becomes a static image. Press the red button again for a moving image.

### Changing the channel of the TV image



The PIP status must be white. If it is not, press the green button. Then select the station as normal.

### PIP channel scan



The PIP status must be green. If it is not, press the green button.



Start the PIP scan with the blue button. The PIP status turns blue.

The PIP channel now changes automatically. Stop the station scan with the blue button. The PIP status turns green again.

### Interchanging PIP image/TV image



The PIP status must be green. If it is not, press the green button.



Interchange the pictures with the yellow button.

### Position of the PIP image



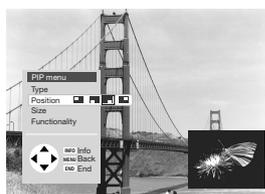
The PIP status must be green. Call the PIP menu with the **MENU** button.



Mark "**Position**".



Select a symbol for the position.



Hide PIP menu

### Size of the PIP image



Mark "**Size**" in the PIP menu.



Select "**Large**" or "**Small**".

### Split Screen



Mark "**Type**" in the PIP menu.



Select the symbol for Split Screen.

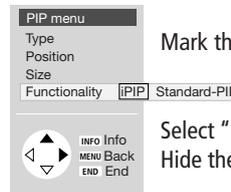


Hide PIP menu

The image on the right pertains to the PIP image and has no sound. TV image and PIP image are separated from each other by a colored line (PIP status).

### Adjusting "iPIP"

Switch on the PIP menu with the **MENU** button.



Mark the "**Functionality**" bar.

Select "**iPIP**".

Hide the menu with the **END** key.

### iPIP function:

In iPIP the presently displayed TV image becomes the PIP image. For the TV image, select another channel and retain the PIP image.

In iPIP, the PIP status is orange-colored.



Show/hide PIP picture

Also read the info text; press the **INFO** key. The PIP image changes back into TV image, when you switch off PIP.

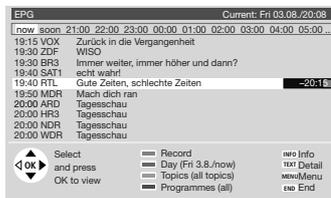
# Modes of operation

## EPG mode

EPG is the electronic station guide for TV programs. With this system, you can easily find the programs that interest you (sorted according to time, day, topics and programs). You can memorize programs and program recordings. A wizard is activated the first time you use EPG (not with DVB) which guides you through the necessary settings. Then run the data acquisition (see page 16).

### Using the EPG

**\* EPG** Switch EPG on/off



The first line is framed initially in green. The green frame stands for time and date, with the green button you switch between time and day or, if the frame has a different color, back to the green frame. With the arrow buttons ◀ ▶ you select: now, later, the time or day for starting stations. The list of stations below is updated accordingly. With the buttons ▼ ▲ you mark a station you want to watch (now running), memorize or record.



The frame turns yellow when you press the yellow button. The yellow frame means you can select topics. With the arrow buttons ◀ ▶ you choose between personal topics, all topics and the individual main topics such as Film, News, Show,

Music etc. The list of stations below is updated accordingly. With the ▼ ▲ buttons, you mark a station you want to watch (a program currently running), memorize or record.



The frame turns blue when you press the blue button. The blue frame signifies station selection. Use the arrow buttons ◀ ▶ to choose between your favourite stations, all stations or the station just set. You can select another individual station by moving to "... " with ▶, marking a station in the list and storing it with **OK**.

The respective current settings are shown next to the operating notes for the color buttons.

### Direct input of time

You can also enter the time directly with the numeric keys of the keypad. After entering the first digit, the time is displayed first next to the symbol of the green button and is then replaced by the entered numbers, e.g. 2100.

If the entered time has already passed, its entry is used for the following day.

### Viewing or noting a program

You can watch or note the program selected with the ▼ ▲ buttons by pressing the **OK** button. A + sign is set in front of the program title for noting. At the start of the broadcast, this program is switched to or you see a message.

### Programming recording with VCR

You prepare the station marked with the buttons ▼ ▲ by pressing the red button. Under "Timer Recording" you select VCR and whether

you want to record one program or a serial. A red dot is set in front of the title of the program. If a program is already marked by a red dot, you can delete the timer data again with the red button (the red dot disappears).

### Calling detailed information

If detailed information about the selected station is available, you will see the **TEXT**-button displayed additionally. You can call the detailed information with this button.

### Other functions in the EPG menu:

Call the EPG menu with the **MENU** key.

### List of memorized programs

You will find the stations you have memorized in a list.

### Switch on TV at mark

You can have the TV set switch on automatically from standby mode at the time of a marked program. If you are not in at this time, a security prompt makes sure that the TV switches off again after 5 minutes.

### Indicate/start memorized station

If the TV is already on when the memorized program starts you can have the start of the program indicated or the TV switched over immediately.

### Short info lines

Short infos are broadcast for many programs. Set how many lines this information should have or switch the short info lines off.

### EPG entry

If you want to start EPG operation, you can retain your last settings for topic and program selection or start with all topics and all programs.

# Modes of operation

## EPG settings

If you want to change the provider or want to have other programs evaluated, you can do this in the EPG menu.

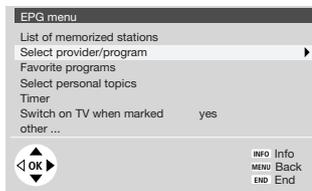
### Provider search



EPG on/off



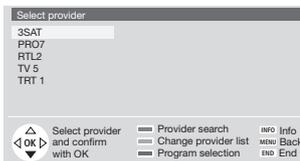
Call EPG menu



Mark "Select provider/program"



Call



Start provider search (green button). This may take some time.



Mark the provider

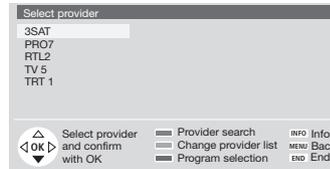


Save the provider

This is followed by a station search and a list of TV stations is displayed which transmit data. Move on to the provider selection with the **OK**-button. If the stations offered are what you want, move on to the station selection with the blue button.

## Selecting stations for EPG

Select the stations here for which information is to be collected.



Stations marked by + are favorite stations. The provider supplies information for stations marked by E (terrestrial, cable and analog satellites) and D (digital), these are already marked (blue letters).



Mark the station/Remove the marking



red: Only mark favorite stations



green: Mark all stations



yellow: Only mark this station



Back to the EPG menu

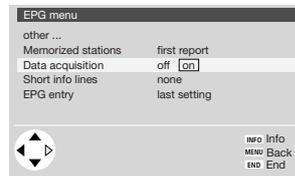
## Switching data acquisition on/off



Mark "Data acquisition" in the EPG menu under "other"



Select data acquisition off/on



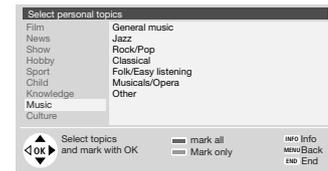
If, for example, you cannot receive any EPG providers and no DVB is installed in the TV set, you should switch off the data acquisition.

## Performing data acquisition

The data must be collected first after these settings or every time the TV is switched off. To do this, select the program which you have defined as a provider and leave it switched on for about one hour or switch the TV set to standby mode. The green (blue) LED lights up in addition to the red LED after about two minutes. Data acquisition takes about one hour, in sets with a DVB module a little longer. The data are automatically collected between 2 and 5 in the morning when the TV is switched off to standby.

## Defining personal topics

You will find the programs that interest you faster when you define your personal topics. Mark "Select personal topics" in the EPG menu and put together your list of personal topics.



## Radio mode

Switch the TV-radio mode on or off by pressing the **RADIO** button.

If a satellite tuner and a DVB module are installed in your TV, radio stations are available. If these accessory modules are not installed, you can select only the audio inputs (connections AV1 to AVS, DIG IN 1, DIG IN 2) with the program table or with the keys **▼ ▲** and play an external audio signal through these.

# Modes of operation

## Teletext mode

Teletext transmits information such as News, Weather, Sport, Program Previews and Subtitles.

**TEXT** Teletext on/off



Many stations use the TOP operating system, some use FLOF (e.g. CNN). Your TV supports both these systems. The pages are divided into general topics and topics. After switching on the teletext, up to 3500 pages are stored for fast access.

### Selecting pages with the colored buttons

The colored bars (in TOP) or the colored writing (in FLOF) in the last line but one show you which colored buttons to use to scroll to general topics and topics.



**red:** back to previously viewed page (not with FLOF)

**green:** forward to next page (not with FLOF)

**yellow:** to the next topic (only in TOP and FLOF)

**blue:** to the next topic (only in TOP and FLOF)

### Page selection with the numeric buttons

**1 2 7 pgrs** Enter the page number directly

### More functions for page selection



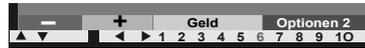
Mark a specified page number on the page (Page Catching)



Launch



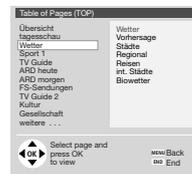
Scrolling in stored sub-pages. In the bottom line you will see which sub-pages you can already launch



Launch contents page 100



The TOP table is a general list of teletext. You can only launch the table on channels which use the TOP operating system.



Launch the TOP table



Mark a general topic



Select the Topics column



Mark menu items



Display page

### Displaying teletext pages



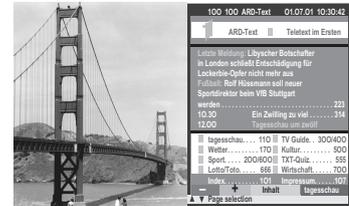
Stop self-turning pages (HOLD)



zoom: top half - bottom half - normal size



TV picture on/off (Split text)



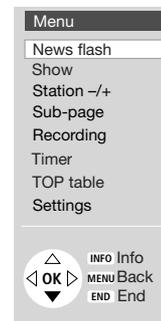
### Program timer recordings

If the remote control is set to "TV" (no equipment combination), call the program pages of the current station with the Record button **•** in teletext mode. Select the station you want to record with **▼ ▲** and confirm with the **OK** button. Select VCR for "Timer data". Confirm with **OK**.

### Teletext menu



Launch teletext menu



Here you will find functions such as "News flash", "Show" hidden information, switch to other channels (if another tuner is available), enter 4-digit sub-page number directly and programme video timer recordings via teletext.

In the settings you will find menus to define the preview pages, subtitle pages and personal teletext pages.

# LOEWE Dialog

(only activated in connection with the Digital Recorder Plus)

In connection with the Digital Recorder Plus the LOEWE dialog page offers an overview and quick access to information content of the TV, e.g. the programs currently showing, programs last recorded etc.

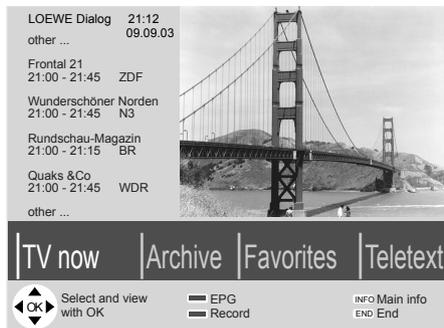
You should have already made a few settings before using the LOEWE Dialog to provide selection possibilities.

You should have made the EPG settings described on page 15 and run the EPG data entry. The Digital Recorder archive should also already contain recordings. You should have defined a few personal teletext pages. In all these cases you then have a useful selection.

No LOEWE dialog is displayed with NTSC reception. You call the LOEWE Dialog with the arrow buttons on the remote control when no menu is displayed.



Press one of the arrow buttons  $\uparrow$   $\downarrow$   $\leftarrow$   $\rightarrow$  for about 1 second.



The TV program just selected is shown in reduced size (the live picture).

The blue bar shows you the selectable functions. The function on the left is active. You can move the function to the active position with the arrow keys  $\leftarrow$   $\rightarrow$ .

Above the selected function you see a selection which you can navigate with the arrow buttons  $\uparrow$   $\downarrow$  and view with **OK**.

**With TV now** - The selection of programs currently running acquired by the EPG system is displayed in TV now. If no EPG is received, a programme info of the station currently being received is displayed.

**With Archive** - the selection of recorded programs in the DR archive is displayed.

**With Radio** - the selection of programs of the satellite radio is displayed. If you have switched over to Sat radio mode, LOEWE Dialog cannot be called. If you do not receive satellite radio (no satellite tuner/DVD module), Favorites is displayed in place of Radio, that is favorite programs you have defined.

**With Teletext** - the selection of personal teletext pages is displayed.

This is how you select with the example of the "TV now" function

Mark the desired station with the arrow buttons  $\uparrow$   $\downarrow$ , the name turns blue. Other stations can be displayed with "others..."

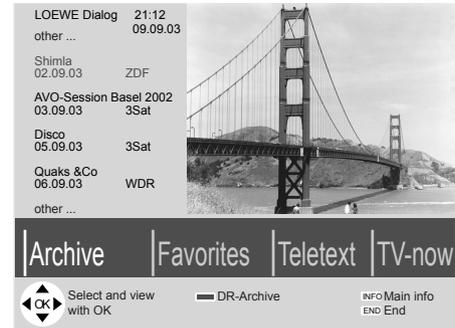
Press the **OK** button to watch the station. You can call LOEWE Dialog with the  $\uparrow$   $\downarrow$   $\leftarrow$   $\rightarrow$  buttons so that the desired function is ready for selection on the left.



Call TV now  $\uparrow$



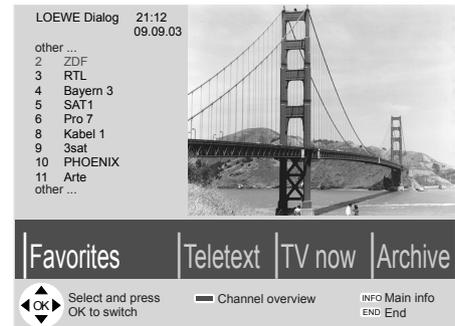
Call Archive  $\rightarrow$



Call Teletext  $\leftarrow$



Call Favorites  $\rightarrow$



# Operation of additional equipment

## Video mode

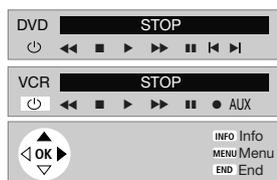
You can operate Loewe video recorders and DVD players with the video control bars even if they are hidden. The VCR's must be connected to the Euro AV sockets (Scart) and logged in under the "Connections" menu.

Digital Link must be switched on on the Loewe video recorder. Only then can you use the control bar. You also need Digital Link for timer recordings of satellite programs controlled by the TV set.

You can display up to three menu bars, these are displayed when the appropriate video units are logged in the "Connections" > "Connections: Connection plan" menu.



Show/hide video menu bar:



Select video menu bar, if for example several VCRs or a DVD player and a VCR are connected.



Select function



Switch VCR/DVD on/off



Select video input (Euro-AV socket) for the VCR



Rewind (only for VCR) or Scan in rewind



Stop (STOP)



Playback (PLAY)



Fast forward (only for VCR) or Scan in fast forward



Pause (PAUSE)



Next chapter (only for DVD)



Previous chapter (only for DVD)



Record



Perform selected function.

When you start a recording, the program you have just selected is recorded. You cannot switch over to another channel, it is locked. You can only switch over when the recording has finished.

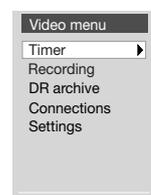
Exceptions:

1. You have installed several tuners (not PIP tuners) in the TV set, then you can watch another channel with the second tuner.
2. You can also watch the signal via an AV connection (e.g. DVD player or a second VCR).
3. In a VCR with Digital Link Plus the VCR tuner is used for the recording (not for satellite programs).

## Video menu



Show the Video menu



A line is displayed in the menu if a Link Plus Recorder is connected.

The Video menu provides you with the following options:

You can change and delete timer data or program new recordings in the "Timer" menu. The "Record" menu gives you the option for timer programming by EPG, teletext or manually.

You can call the archive list with "DR Archive" if a Digital Recorder is built in.

In the "Connections" menu you can log other AV equipment on or off. In the "Digital Link Plus transfer" menu the station data of the TV set (not satellite stations) are transmitted to the Digital Link Plus VCR.

**Digital Link Plus** VCRs have the possibility for transferring the station data from the TV set to the VCR via the Euro-AV cable (not for satellite stations). Every time you change the station memory of the TV, you are asked whether you want to make a data transfer.

The receiver unit of the VCR is always used for recording with a Digital Link Plus video recorder (not satellite stations) and the tuner of the TV set is available for watching TV.

Loewe VCRs also have **Digital Link**, a system for controlling Loewe VCRs via the Euro-AV cable. If the Loewe VCR only has Digital Link, the TV tuner is used for recording. If you have installed your Loewe VCR in a concealed place, you can operate the Loewe VCR with the remote control. Operation with the control bar also works with Digital Link.

**Digital Link must be switched on on the video recorder.**

Only use fully wired Euro-AV cables, otherwise Digital Link or Digital Link Plus will not work.

# Operation of additional equipment

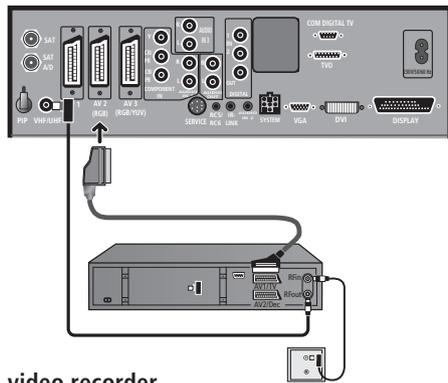
## Logging in equipment

You have already logged in and connected all connected devices (video recorders, camcorders, DVD player, DVD recorder, Loewe audio system, Pay-TV decoders, Loewe home automation, door intercom) with the connection wizard when you put it into operation for the first time. If you want to connect further or different devices, you have to call the connection wizard in the TV menu - "Connections".

## Connecting VCR equipment

In addition to the connection via the Euro-AV socket, you also have to connect the antenna (only for antenna or cable systems) through the VCR to the TV set. The antenna signal is then available both to the tuner in the VCR and the TV tuner.

## signal box



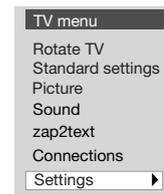
## video recorder

## Search for and store the VCR station (if there is no Euro AV cable)

Switch on the test station on the VCR or insert a recorded tape and start playback.

Then call program 0 on the TV set (set ex-factory to channel 36). Select the first menu item (VCR) in the AV selection list.

To prevent "normal" TV stations being found in the search, pull out the antenna plug from the antenna input of the VCR temporarily (the plug attached to the cable to the antenna system).



MENU

Call the TV menu



Mark "Settings"



Call



Mark "Stations"



Call



Mark "Manual setting"



Call



Mark "Range" and Select "UHF"

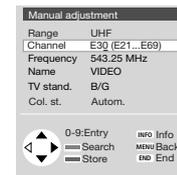


Mark "Channel"



Enter channel 30

0 AV



Search for channel (blue button)

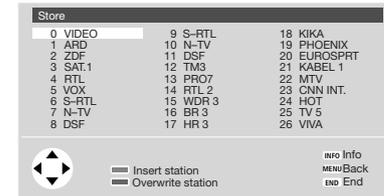
When the station is found:



Store (red button)

If you want to change the program, e.g. to "Video", select the "Name" line. Enter the new program name.

A list of the stored stations is displayed



Overwrite program (program 0 marked) pressing the **red** key



Hide menus

Plug the antenna plug back into the VCR. If you now get interference because a TV station is transmitting on the same channel as the VCR station, you have to change the transmitting station on the VCR (see operating instructions of the VCR) and search for the VCR station on the TV again.

# Operation of additional equipment

## Video playback

There are several ways to see the picture and hear the sound of the VCR, DVD player or camcorder on your TV:

1. Use the Euro-AV sockets on the signal box and VCR. This is the best way to get a good picture and sound quality. For camcorders it is best to use the front sockets AV5. If you are playing back from a VCR with Digital Link Plus, the VCR picture is shown on the current station slot. If you are playing back from a standard VCR, DVD player or camcorder, select the AV socket to which the video signal is connected in the AV selection list or the station table. Video recorders emit a switching voltage during playback which the TV set can decode (can be activated for every VCR in the connection wizard or set Settings - AV Settings - Allow switching voltage to "Yes" in the TV menu). Then the VCR picture is shown on the current station slot as in Digital Link Plus VCR's.
2. You can also control logged in Loewe VCRs and DVD players with the video menu bar. See page 19 for more details.
3. Use the antenna connection between the VCR and the signal box. The sound is only transmitted in mono. Select the first menu item, e.g. VIDEO, in the AV selection.

## Calling an AV program in the AV selection list

Call AV selection list

AV Selection VIDEO AV1 AV2 AV3 AV5 VGA/XGA DVI COMP.IN

0 AV

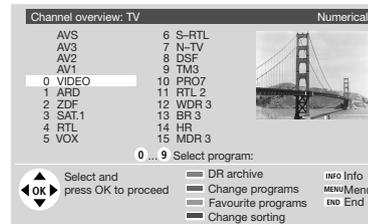
Select AV connection (e.g. socket AV1) or VIDEO for the VCR station.

Now you will see the playback from the connected AV unit.

## Calling an AV in the station table



Call the station table



In the numeric sorting you will always find the AV devices at the top of the list without station numbers.



Select the AV connection and...



confirm with **OK**.

Now you will see the playback from the connected AV unit.

## IR-Link

Your TV set is equipped with the IR-Link socket (IR-Link), a cable with plug and the IR transmitter diode are included with the set. This allows you to operate a concealed d-box or a VCR from another manufacturer with its remote control through the TV set with most remote controls. Plug the jack plug of the cable with infrared transmitting diode into the IR-Link socket on the back of the signal box. The infrared transmitting diode at the end of this cable must be placed in front of the concealed device. The TV must be switched on for transmission.

A napped strip is provided to help to lay the cable. The strip is self-adhesive; pull off the backing foil first. Stick the strip to the shelf or cabinet and press the cable into the naps. You can cut up the strip into several sections with a knife.

Point the infrared remote control at the TV to operate the concealed VCR.

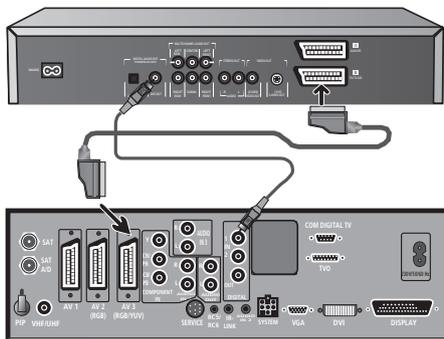
# Operating additional equipment

## DVD player

Log in the DVD player as described in the TV operating manual.

The signal box has two coaxial digital audio inputs 1/2. Connect the output socket of the DVD player (DIG OUT) to the digital audio input socket (DIGITAL IN 1 or 2) of the signal box with a cinch cable.

Also make a connection for the picture and analogue sound signal (mono or stereo). Plug the Euro-AV cable into the "Euro AV 1/ Audio/ Video" socket on the DVD player and into the Euro-AV socket AV 3 on the signal box.



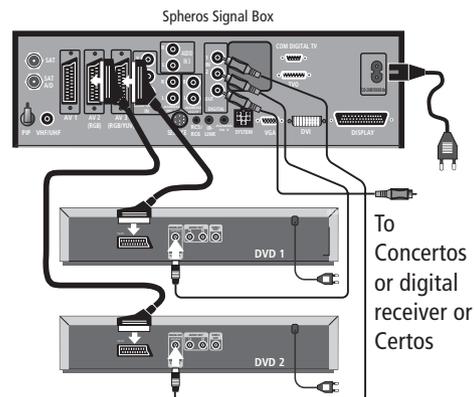
## Digital output

The digital sound signal is present at the socket DIGITAL OUT of the TV set. You can connect here, say, an external Dolby digital decoder.

## Digital input/output

The integrated "Digital Input Selector" is a comfortable electronic switch with about 4 inputs and one output for digital sound signals. Connect the Loewe Certos/Concertos system or a digital receiver to the digital output (DIGITAL OUT) of the TV set. This switch makes two digital inputs (DIGITAL In 1 and 2) available to you for external devices.

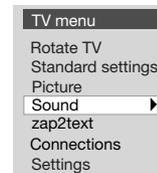
The TV set uses the other two inputs. The TV set or a DVD player or another sound source, connected to one of the AV connector sockets of the TV set, thus converts a digital signal (PCM) and outputs it to the socket "DIGITAL OUT". You connect the digital sound output of the DVD/CD player to the digital input 1 or 2 on the TV set by means of a Cinch cable. The digital signal from the DVD player is outputted unaltered at the digital output of the TV set. You connect the video output of the DVD player to the AV connection socket AV3, AV2, by means of an AV connecting cable, depending on the default in the "Connections" menu of the TV set.



If you switch on the "Radio Mode" the digital inputs 1 or 2 can be selected directly. The digital TV sound or the sound of a DVD/CD player is only audible through the Digital Receiver or the Concertos or Certos system.

MENU

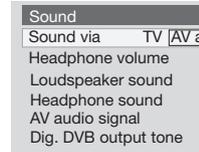
1. Call up the TV menu by pressing the **MENU** key.



2. Select the "Sound" line, then press the **OK** key.



3. "Sound via" select the "AV amplifier (Dig. input)" or "Concertos", if Concertos has been connected.



- Press the **OK** key

MENU

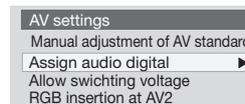
4. Press the **MENU** key.



5. Select the bar "Settings" and confirm with **OK**.



6. Select the item "AV settings", then confirm with **OK**.



# Operating additional equipment

7. Select the "Assigning Audio digital" line and press **OK** to confirm.

Assign audio digital

Digital In1 no to AV1 to AV2 **to AV3**  
Digital In2 no

8. Select "Digital IN 1 - to AV3" for example for socket AV3 if a DVD player or CD player with coaxial-digital output is connected to digital input 1 and this device is logged in in the "Connections" menu.  
If the video signal from a play console is connected to the AVS socket, the relevant device is logged in and the digital sound is present at the digital input 2, then select "Digital In 2 – to AVS" etc.
9. You can complete the settings by pressing the **END** key, the settings are then saved.

## AV-connection/Select device:

0 AV

Press the key 0 on the remote control a little longer; the AV selection bar is displayed again.

AV Selection VIDEO AV1 AV2 AV3 AVS VGA/XGA DVI COMP.IN



Select the AV connection to which the sound source, such as the DVD player, is connected.

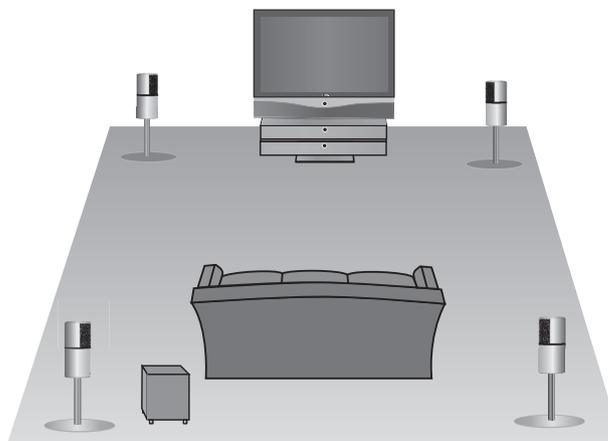
## Note

The digital TV sound or the digital sound from a DVD/CD player is only audible through the Digital Receiver or through the Concertos system.

## Connecting Loewe sound systems

The arrangement of the speakers and the television set might look as depicted below. However, the layout of the front and surround speakers should be set up in symmetry to the television set and your sitting position. The surround speakers can also be set up behind your sitting position, facing towards the front speakers. The Acoustimass® module can also be set up in another place, e.g. particularly effective behind your sitting position, but in such a way that the bass frequencies are able to radiate freely.

### Spheros with Concertos sound system



The Concertos sound system offers you a new type of sound dimension in music and film performances with integrated electronics. Even at low volumes, you can then hear the full bass in the correct ratio to the higher and medium frequencies.

Loewe offers two sound systems **Concertos 1** and **Concertos 2**, consisting of an Acoustimass® Module, a set of cables and the satellite speakers. If the integrated speakers of the TV set are not to be used for the center channel, then **Concertos 1** with five Loewe satellite speakers can be connected.

Your Spheros uses the integrated loudspeakers in the TV as a center channel. Therefore use Concertos 2 with four satellite loudspeakers.

## Connecting Concertos components:

Before connecting the devices, ensure that they are switched off or pull out the mains plug. Connect the components of the Concertos system to the TV set, as shown on page 26.

## First use:

To put Spheros into use with the Concertos system, some settings from the Sound menu of Spheros are required. In this context, please read the separate Operating Instructions "Concertos 1 / 2 – Sound".

# Operating additional equipment

## Converting the remote control in order to operate a Loewe DVD player or devices from other manufacturers

You can switch over the remote control for VCRs, DVD players and Set Top Boxes if the infrared code of the equipment type is listed in the code list or is in the code memory of the RC3. Switching over is done on the one hand by entering a four-digit code and on the other hand the remote control suggests codes which you can test on the equipment.

If you cannot find the equipment in the code list, try a suggestion from the remote control. Even if the manufacturer of the equipment is included in the code list, it is possible that it cannot be operated. Not all functions on the RC3 are available for this equipment.

**Switching over the remote control – with code input – e.g. to the Loewe DVD player**  
Look for the code number of your equipment in the code list. The list is sorted according to equipment type – DVD, VCR, STB – and alphabetically according to manufacturer. You will find one or more code numbers next to the manufacturer name.

Using the switch select whether you want to switch over to a VCR, DVD player or a Set Top Box.

Press the **END** and **\* EPG** buttons at the same time (5 secs). The display at the top left of the remote control flashes twice.

0 AV

5 jkl

3 def

9 wxyz

Enter the four numbers from the code list one after the other (0539 for Loewe DVD player). The display flashes once after each number is entered.

Twice after the last number. If the number was incorrect, the display flashes for longer. The code number has not been accepted.

Once the code has been accepted with two flashes, you can test the functionality of the device you have just programmed. If the device cannot be operated or is difficult to operate, repeat the code input with the next code from the list. If no other codes are specified for this manufacturer, try a code suggested by the remote control.

### Switching over the remote control – with the suggestions by the remote control (see page 35-41)

Switch on the device to which you want to set the remote control. Standby is not sufficient!

Using the switch select whether you want to switch over to a VCR, DVD player or a Set Top Box.

Press the **END** and **\* EPG** buttons at the same time (5 secs). The display at the top left of the remote control flashes twice.

9 wxyz

9 wxyz

1

\* EPG

Enter the numbers 991 one after the other. The display flashes once after each number is entered.

Press the **# PIP** button to select the first code.

Hold the remote control pointed towards the device you want to switch over to. Watch the device.



Now press the **▶** (Play) or **⏻** (On/Off) button on the remote control.

Wait a moment for the reaction of the device. If the device does not react, the code is incorrect.

Press the **# PIP** button to call the next code.

# PIP

Press the **▶** (Play) or **⏻** (On/Off) button again.

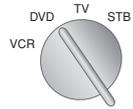


\* EPG

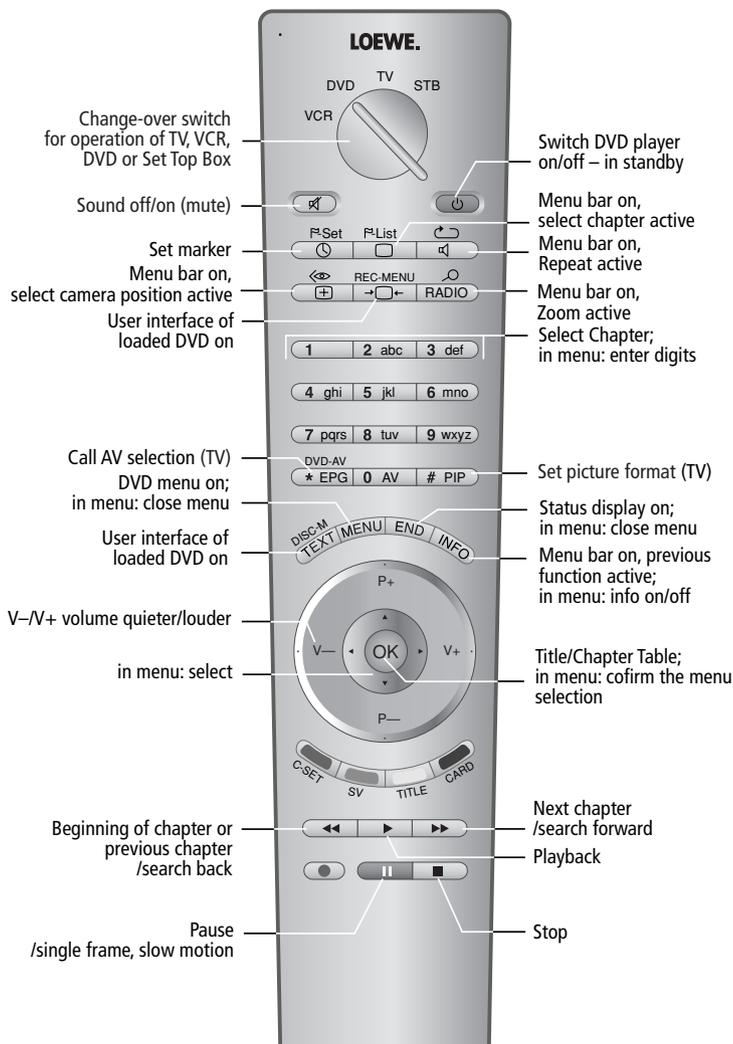
If the device reacts, press the **\* EPG** button to confirm the code.

# Operating additional equipment

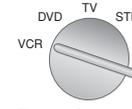
## Remote control RC3 for operating a DVD recorder or DVD player



Set the rotary switch to "DVD".

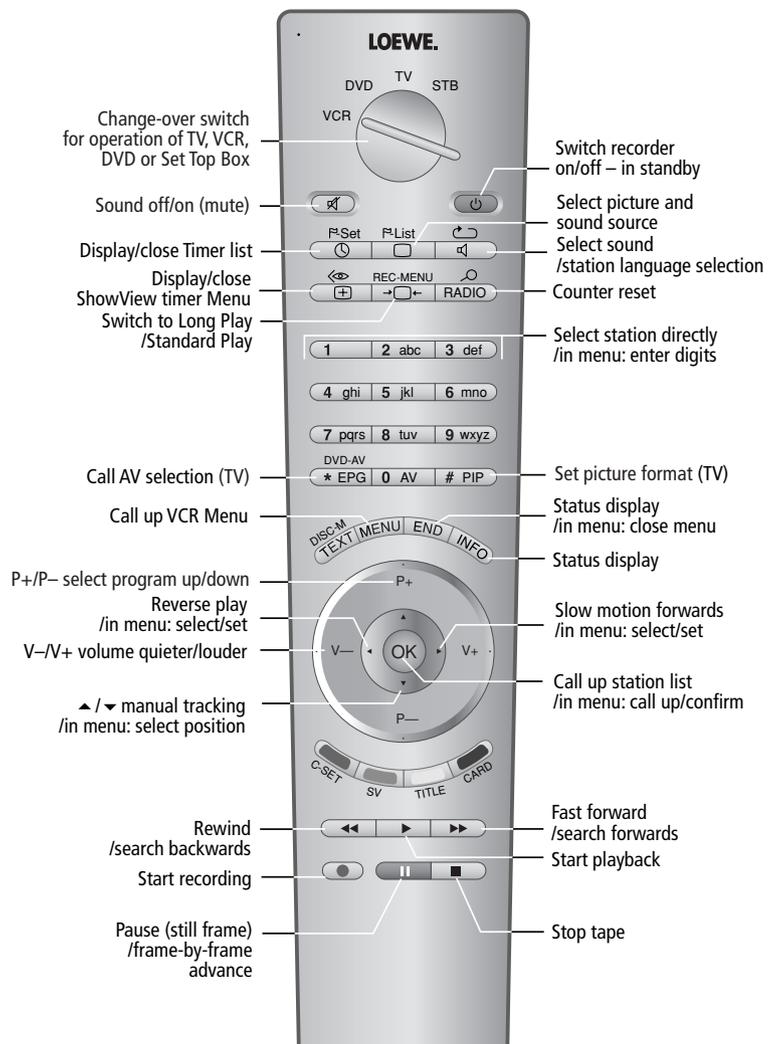


## Using the RC3 remote control for operating a video recorder

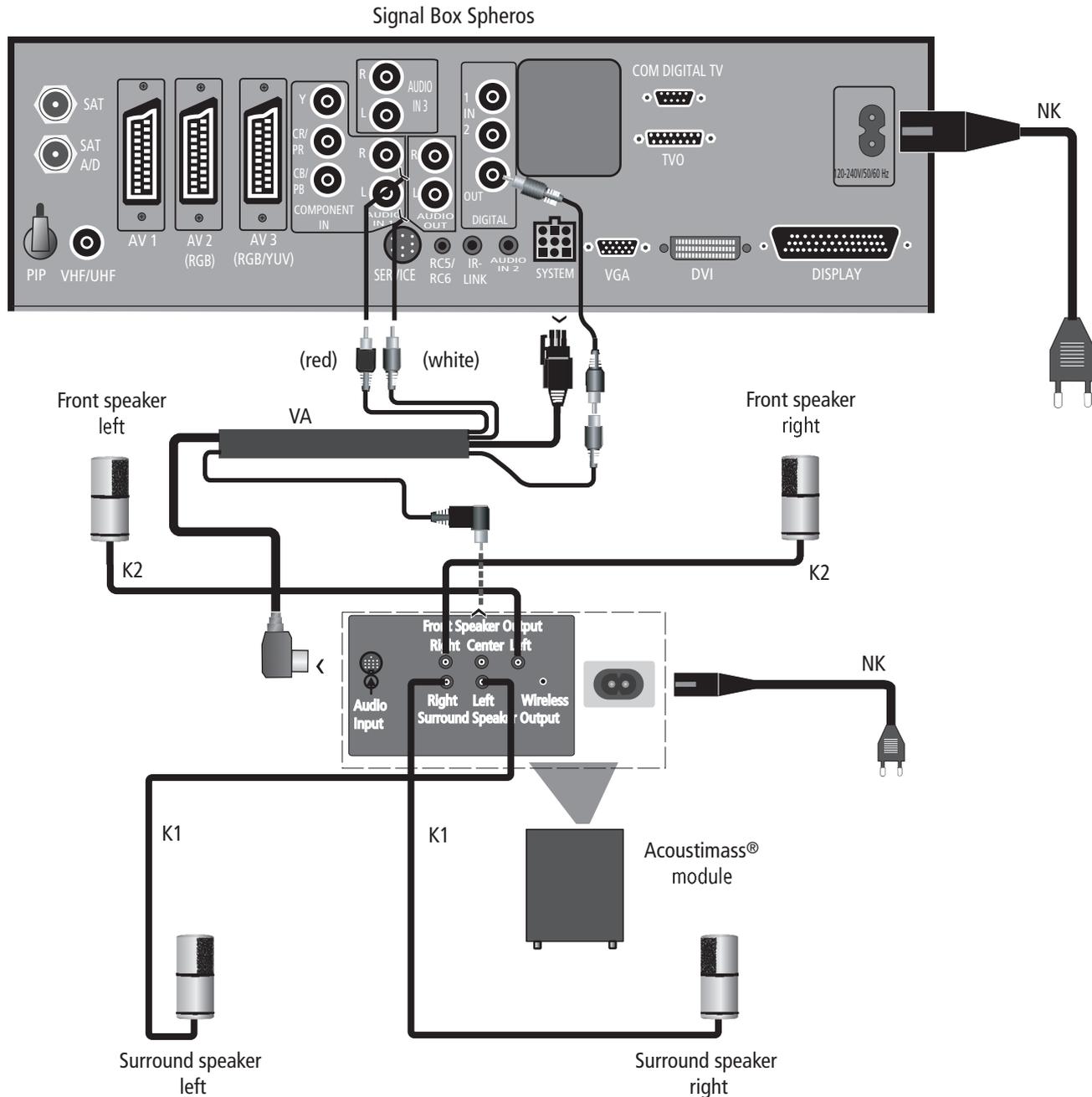


Set the rotary switch to "VCR".

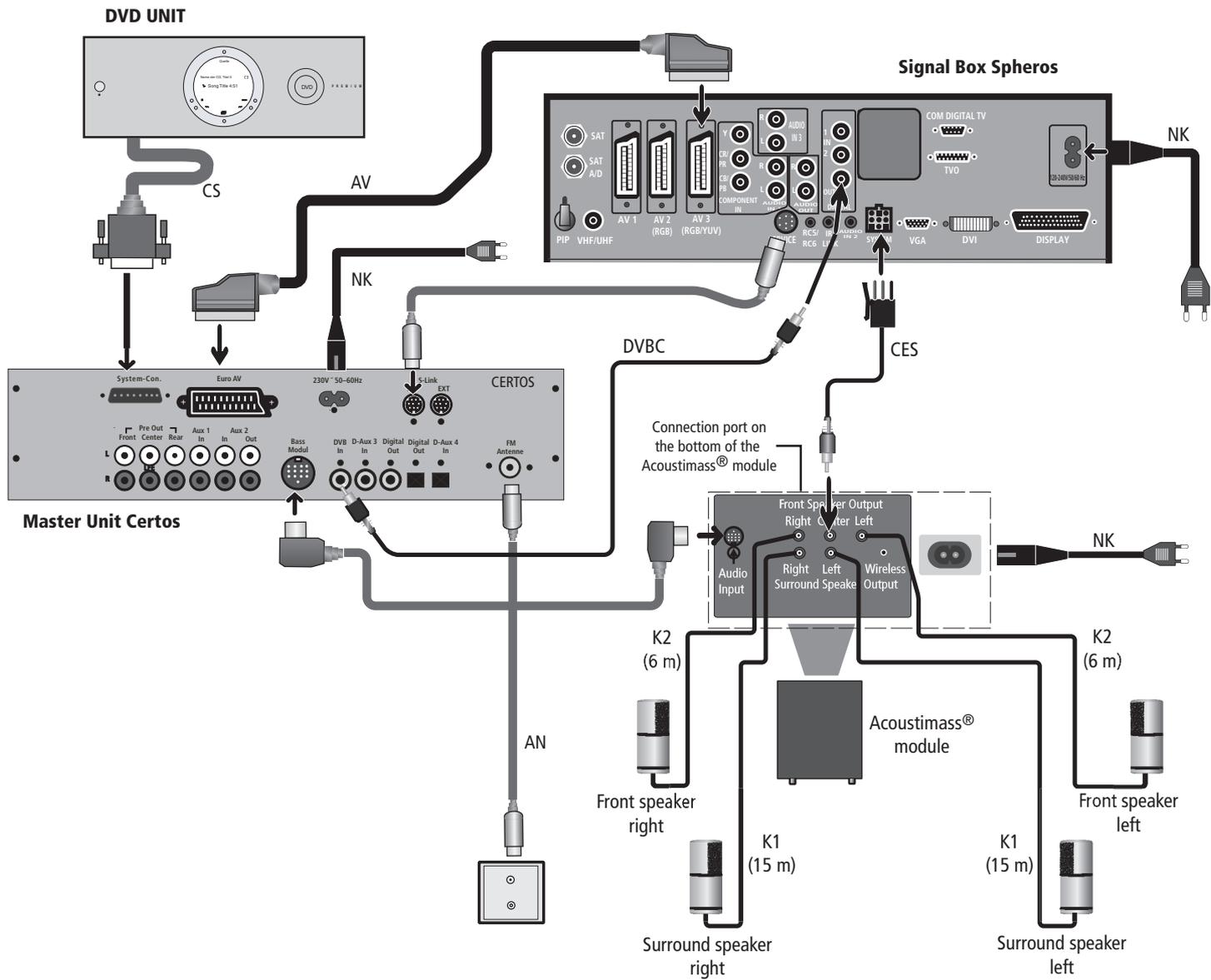
The infrared code and the functional scope for a Loewe VCR is set ex-factory.



# Loewe sound systems Concertos and Spheros



# Loewe sound systems Certos/Concertos and Spheros



# Viewing angle range of rotation

If the screen is mounted on a "Motor Unit" you can rotate it with the remote control to suit your sitting position.

## Setting the rotation area (a maximum of +/- 40 degrees)

With this menu, you can determine the maximum rotation to the left and right.

-  Press **MENU** on the remote control.
-  Highlight the "Settings" bar.
-  Press **OK**, then to "other..."
-  Highlight the "Rotate TV" bar, press **OK**.
-  Select line "Basic adjustment".
-  Press the **OK** button.
-  You set the desired maximum range of rotation to the right by pressing the ring (right). Rotation stops when you release the ring.
-  The setting is saved by pressing **OK**.
-  Then set the desired maximum rotation to the left by pressing the ring (left).
-  Confirm with **OK**.
-  Press **END** to exit the menu.

## Determining the switch off position

Here you determine the position of the screen (TV set) which is adopted when switching off providing you have activated this function.

-  Press **MENU** on the remote control.
-  Highlight the "Settings" bar.
-  Press **OK**, then to "other..."
-  Highlight the "Rotate TV" bar, press **OK**.
-  The menu "Rotate TV" appears. Select Define "Switch-off position".
-  You set the desired switch off position to the right or left by pressing the ring.
-  You have already determined the rotation range you can select.
-  Rotation stops when you release the ring.
-  Save the "set switch-off position" with **OK**.

## Function switch off position on/ off

You determine whether the TV set moves back to the determined switch off position when switched off with the remote control (the set cannot be operated during this time, approx. 35 seconds).

-  Press **MENU** on the remote control.
-  Highlight the "Settings" bar.
-  Press **OK**, then to "other..."
-  Highlight the "Rotate TV" bar, press **OK**.
-  If you select "**yes**" in the line "Activate switch off position" the TV set will turn to the set position when switching off with the remote control. The TV does not rotate when switching off if "**no**" is selected under "Activate switch off position". The TV set stays at the last set position when it is switched off.
-  Press **END** to exit the menu.

# Displaying PC images (DVI/VGA)

Your Spheros has a digital visual interface (DVI) with which you can show PC images on the TV screen for example.

## Connecting personal computers

Connect the PC directly to the socket labeled "DVI" on the back of the Spheros signal box. The digital audio signal can be connected to the input "Digital In 1 or 2". If your PC does not have a DVI interface, please use a VGA cable and connect it to the "VGA" socket on the signal box. Connect the analogue audio output of the PC to the "AUDIO IN 2" socket. The TV set can be connected to the following standards: VGA (640x480 @85Hz), XGA (1024x768 @85Hz), SVGA (800x600 @85Hz) or SXGA (1280x1024 @75Hz).

### DDC Function (Display Data Channel)

The DDC function automatically detects graphic resolutions supported by the TV set. If you wish to use the DDC function, first connect the PC to the TV set via the VGA or DVI socket. Boot the PC. Regardless of whether the TV set is on or off, you can select the graphic resolution (e.g. XGA 1024 x 768 at 75 Hz) in the "Properties" menu on the PC.

### Launch the program for displaying PC images

 Press the (Zero) key and "AV Selection" appears.

 Choose "VGA"/"XGA"

### PC image settings

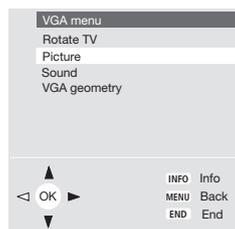
If a PC image is displayed on the screen, you can call up the "VGA menu".

 Call up the VGA menu and...

 Highlight the "Picture" line



Confirm



In the "Image" menu, you can select the contrast, brightness, sharpness, picture format, colour standard (not with DVI) etc. and adjust the light ratios to your personal preferences. To display pictures, you can select the format 4:3, since most camera pictures are taken in this format.

For an optimum display and maximum picture focus of standards VGA and SVGA, you can select "Original" under "Picture format". In this case the exact format values of the graphic card must be known and set in the menu "VGA geometry".

In the "Sound" menu, you can set the volume of the loudspeakers or headphones, or select the tone for two-tone playback.

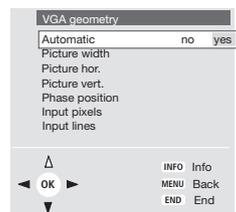
### VGA geometry settings



In the VGA menu, select the line "VGA Geometry"



Launch



The setting options are restricted in "DVI".



Select "Automatic yes" on a computer with a conventional graphics format.



Your Spheros will automatically adjust to the supplied image format.

Special graphic format may require further settings to be made:

- Set the picture width
- Move the picture horizontally, to the left or right
- Move the picture vertically, upwards or downwards
- Set the phase position to give a picture that is as jitter-free as possible
- "Input pixels" allows you to set the horizontal resolution of the PC image.
- "Input lines" allows you to set the vertical resolution of the PC image.



Save settings



Pressing the **END** key on the remote control hides the menu.

Selection possibilities for the "COMPONENT IN" socket: Choose the menu "Connections" and set it as follows: Connections: Connection plan → Device selection → others → Device to COMPONENT IN socket **yes**. After pressing **OK** several times, you get the menu "Connections" with the following selection possibilities:

- Automatic, it is detected automatically which signal SDTV or HDTV/Pro scan is applied at the "COMPONENT IN" socket.
- SDTV for PAL with 625 lines, 50 Hz interlaced or NTSC 525 lines, 60 Hz interlaced
- HDTV for high definition video signals
- Pro scan for 625 lines/50 Hz or 525 lines/60 Hz progressive.
- With **OK**, you finally get the menu "Connections: Assign Audio Digital".

## What to do when ...

| Problem   | Possible cause  | Remedy   |
|---|---|--|
| Various menu items cannot be called (shown in gray) or the menus for the EPG and teletext modes of operation cannot be called       | "Simplified operation" activated in the main information.   | Deactivate "Simple control" in the Main Information, press the i-key, select "Select control level" and call up with <b>OK</b> . Set "Simple control" to "no".   |
| Record and Timer are not displayed in the video menu  | No VCR or DVD recorder logged in and no digital recorder installed  | Log in VCR in the TV menu - Connections.   |
| "Connections" for example cannot be called in the video menu (grayed out)   | a) A timer recording is in progress (not with serial timer recording)<br>b) You are recording from the TV set with the video bar  | a) Wait until the timer recording has ended or clear the timer.<br>b) Stop recording.  |
| In the TV menu, the menu item "Programs" is missing and in the Main Information the item "Automatic channel search" and connections | The child lock is activated. If these menus were accessible, children could still set the programs.   | Deactivate program-related child lock: Switch off child lock or enter PIN in the TV menu - Settings.   |
| Control of the Loewe VCR with the video control bar and the timer does not work or does not work properly                           | a) The VCR's Digital Link function is not activated or not possible<br>b) Euro-AV cable not connected<br>c) Video recorder not logged in  | a) Activate Digital Link in the VCR (see operating instructions of the VCR)<br>b) Connect the Euro-AV cable<br>c) Log in the VCR   |
| General problems with connecting external devices through an AV input   | a) The device is not logged in in the "Connections" menu or is connected differently to shown in the connection diagram<br>b) The AV norm is set incorrectly<br>c) The AV signal is set incorrectly | a) Compare the connection diagram with the actual installation in the "Main information" under "Connections" and connect as shown if necessary.<br>b) Set the correct norm.<br>c) Set the correct AV signal.<br>If "Automatic" is set for AV norm or AV signal, this can lead to wrong detection in the case of non-standardized signals. In this case the norm and signal must be set according to the operating instructions of the external device. |

## What to do when ...

| Problem   | Possible cause  | Remedy  |
|---|---|---|
| Connection of a decoder does not work or does not work properly | <ul style="list-style-type: none"> <li>a) The signal is not decoded because the correct decoder programs have not been selected in the TV menu - Connections</li> <li>b) The sound is missing in decoder mode because the wrong decoder sound is allocated in the TV menu - Connections</li> </ul>  | <ul style="list-style-type: none"> <li>a) Follow the instructions in the TV menu - Connections again and select the appropriate decoder programs.</li> <li>b) Follow the instructions in the TV menu - Connections again and select the right sound source (decoder, TV or Autom.), see instructions of the decoder.</li> </ul>   |
| No sound through the TV loudspeakers                            | The item "Sound from..." in the Sound menu under "Sound" is not set to "TV"   | Change the setting to "TV".   |
| All menus appear in the wrong language                          | The wrong menu language has been set.   | <p>Set your menu language:</p> <ol style="list-style-type: none"> <li>1. Switch off picture-in-picture (PIP) and switch off all on-screen displays (<b>END</b> button)</li> <li>2. Call the TV menu (<b>MENU</b> button)</li> <li>3. Select the last menu item and press <b>OK</b></li> <li>4. Select the last menu item on the last page and press the <b>OK</b> button</li> <li>5. Now select the right language and....</li> <li>6. ... confirm with <b>OK</b>.</li> </ol> |
| Digital Link Plus does not work                                 | <ul style="list-style-type: none"> <li>a) The VCR has not been logged in as a Digital Link Plus device or has been connected to the wrong socket</li> <li>b) The Euro-AV cable is not fully wired (Pin 10 not wired)</li> <li>c) Some video recorders can only take over the stations from the TV in initial installation</li> <li>d) All or some terrestrial or cable stations are stored at station slots <math>\geq 99</math></li> </ul> | <ul style="list-style-type: none"> <li>a) Log in the Digital Link Plus VCR under "Connections" and connect according to the diagram.</li> <li>b) Change the Euro-AV cable</li> <li>c) Reinstate the original state (ex-factory) of the VCR (see operating instructions of the VCR)</li> <li>d) Sort the terrestrial and cable stations so that they are between 1 and 99.</li> </ul>  |
| Various characters are displayed incorrectly in teletext        | The wrong character set is set in the teletext menu   | Set the right character set: Teletext menu - Settings - Character set - Standard or the appropriate character set.  |

# Technical data

Spheros 42 HD/DR+, display and signal box  
Article no. 63479

Spheros desk unit  
Dimensions (cm) 114.5 x 85.6 x 16.5 (W x H x D)  
Mass (kg) 68

Spheros Stand unit cpl.  
Dimensions (cm) 114.5 x 122 x 46 (W x H x D)  
Mass (kg) 91.5

Spheros Wall unit  
Dimensions (cm) 114.5 x 84 x 19 (W x H x D)  
Mass (kg) 59.5

Display technology plasma  
Image format 16 : 9  
Image diagonal Visible 106 cm  
Pixel format 1024 x 1024  
Contrast ratio 1000:1  
Angle of viewing greater than 160°  
Relative atmospheric humidity 20 ... 80%  
no condensation  
Atmospheric pressure 800 ... 1114 HPa  
(0 ... 2000 m NN)  
Ambient temperature 0° – 40° Celsius

Spheros Signal Box  
Dimensions (cm) 43.0 x 12.0 x 45.5 (W x H x D)  
Mass (kg) 9.5

Signal box Protection class 2  
Chassis name S 2550  
Power supply 120 V to 240 V / 50-60Hz  
Power consumption In operation up to 315 Watt  
Standby < 3 Watt

Full Digital AMD / DNC adjustable  
Tuner VHF/UHF/ cable  
(Hyper band 8 MHz) 42 MHz to 860 MHz  
Station slot memory 220  
with DVB decoder 1470

TV standards PAL-B/G, PAL-D/K,  
PAL-I, PAL-L  
PAL M/N, PAL 60  
Secam B/G, D/K, L  
NTSC / NTSCV  
Hi-Text (Level 2.5)

Teletext

Sound norms mono/stereo/2-sound  
Nicom B/G, L, I  
Multi channel (optional) Dolby Digital/PCM/  
MPEG

Rated audio power 2 x 20 Watt / 4 Ohm  
Audio music output 2 x 40 Watt / 4 Ohm  
Speakers 2 closed boxes  
High frequencies Ø 50 mm Bellmouth  
Bass Ø 104 mm  
For stand unit: Subwoofer amplifier  
Rated audio output 40 Watt / 8 Ohm  
Speakers Ø 200 mm

## Connections (signal box - front):

Mini-DIN S-Video IN (AVS) S-VHS / Hi 8  
Cinch Video IN (AVS) VHS / 8 mm  
Cinch Audio IN L / R  
Jack 6.3 mm headphones 32-200 Ohm

## Connections (signal box - rear):

IEC socket 75 Ohm Antenna / cable / PIP

### EURO-AV 1:

Video IN Y/C (S-VHS / Hi 8)  
(VHS / 8 mm)  
Video OUT Y/C (S-VHS / Hi 8)  
CVBS (VHS / 8 mm)  
Audio IN/OUT L / R

### EURO-AV 2:

Video IN Y/C (SVHS / Hi 8)  
CVBS (VHS / 8 mm)  
RGB  
Video OUT Y/C (SVHS / Hi 8)  
(Only for S-VHS Link Plus)  
CVBS (VHS / 8 mm)  
Audio IN/OUT L / R

### EURO-AV 3:

Video IN Y/C (S-VHS / Hi 8)  
CVBS (VHS / 8 mm)  
RGB / YUV  
Video OUT CVBS  
Audio OUT L / R

### Component IN:

Cinch Y signal  
Cinch Cr/Pr signal  
Cinch Cb/Pb signal

2xCinch L / R AUDIO OUT  
2xCinch L / R AUDIO IN 1  
Jack socket 3.5 mm AUDIO IN 2  
2xCinch L / R AUDIO IN 3  
Cinch input socket IN 1 Digital sound  
Cinch input socket IN 2 Digital sound  
Cinch output socket OUT Digital sound  
SYSTEM-Bush, 9 poles AUDIO  
Infrared link Jack socket 3.5 mm  
RC5/RC6 Jack socket 2.5 mm  
Service-socket 8-pin  
Connection DVI Digital input  
Input-VGA 15-pin Sub-D

# Available accessories

## Upgrade kits

### Digital-TV upgrade kit 2 Twin-Sat CI (P)

for digital and analog satellite reception with maximum comfort in operation and latest technology which are totally integrated in the TV.

### OnlinePlus upgrade kit

Fully integratable module for comfortable use of Internet, E-mail etc. with the TV.

### Sound-System Concertos Concertos 2

Exclusive 5.1 Digital-Surround Sound System. The center channel is reproduced by the integrated loudspeakers of the Spheros.

### Certos

DVD/CD player with radio and Dolby Digital/dts-decoder in unusual design.

### Dolby Digital (AC3)

For decoding audio signals from the DVD player, TV set or other audio equipment to a 5.1 playback with active speakers.

### Wireless Home Automation

For controlling the house lighting circuit, shutters etc.

## Accessories

### Loewe remote control RC1

This remote control operates almost all Loewe equipment of past and present generations and also has an infrared database for operating equipment from other manufacturers.

### System cables from signal box to plasma display

CA/7 M (7 Meter) or CA/10 M (10 Meter).

## Racks

### Spheros Rack 1

Mechanically rotatable rack system with two adjustable video shelves for video recorders or DVD players.

### System Cube 1/2

Rack system with Motor Unit for rotating the TV set and shelves for VCR, DVD player etc. (in connection with the Spheros 42 HD Cube Adapter).

### Spheros 42 HD Cube Adapter

Adapter for mounting the unit on the System Cube 1/2 rack systems.

### Spheros 42 HD Wallmount

The flat screen can be fixed to the wall with the wall mount and tilted up to 12°.

### Spheros 42 HD Motor Table Stand

Motorized table stand which can be operated with the remote control.

 The code number 3001 cancels out a secret code and with it the child lock. Please keep it in a safe place.

# Service Adressen/addresses/adresses/indirizzi/direcciones/adresy

## Australia

International Dynamics Australasia Pty Ltd.  
129 Palmer Street  
AUS - Richmond, Victoria 3121  
Tel. 03-94 29 08 22  
Fax 03-94 29 08 33

## Benelux

Loewe Opta Benelux NV/SA  
Uilenbaan 84  
B-2160 Antwerpen  
Tel. 0902-88 00 2  
Fax 030-280 33 27

Loewe Opta Nederland B.V.  
Ravenswade, 54A1  
NL-3439 LD Nieuwegein (Utrecht)  
Tel. 0900-280 33 27  
Fax 030-803 327

## Česká republika

TIPA sdružení  
Dolní nám. 9  
CZ-25069 Klicany/Pruha  
CZ-746 01 Opava 1  
Tel: 0653-62 49 44  
Fax: 0653-62 31 47

## GUS

Service Center Loewe  
ul. Verkhnyaya Maslovka, d. 29  
RUS-125083 Moscow  
Tel. 095-212 50 43, 956 67 64  
Fax 095-212 47 10

## Cyprus

Pangratis Liveras & Son Ltd  
P.O. Box 3426  
Liveras Building  
7 Ajax Street Saint Omologite  
CY-Nicosia  
Tel. 02-42 05 10  
Fax 02-42 87 70, 42 06 53

## Denmark

Turku TV Operations Ltd. Denmark  
Roskildevej 342 G  
DK-2630 Taastrup  
Tel. 43 59 77 77  
Fax 43 59 77 00

## Deutschland

Loewe Opta GmbH  
CustomerCareCenter  
Industriestraße 11  
D-96317 Kronach  
Tel. 01801-22 25 63 93  
Fax 09261-99 500

## España

Gaplasa S.A.  
Conde de Torroja, 25  
E-28022 Madrid  
Tel. 91-748 29 60  
Fax 91-329 16 75

## France

Sorep Import S.A.  
11 rue de la Durance  
F-67029 Strasbourg Cédex 1  
Tel. 03-88 79 72 50  
Fax 03-88 79 72 59

## Great Britain

Linn Products Limited  
PO Box 8465  
Prestwick  
UK - KA 7 2YF  
Tel. 01292-47 15 52  
Fax 01292-47 15 54

## Hellas

SOUND HELLAS S.A.  
Kleanthous Str. 10  
GR-54642 Thessaloniki  
Tel. 031-856 100  
Fax 031-856 300

## Helvetia

Telion AG  
Rütistrasse 26  
CH-8952 Schlieren  
Tel. 01-732 15 11  
Fax 01-730 15 02

## Italia

General Trading Trust SpA  
Via Vittorio Emanuele, 33  
I-50041 Calenzano (FI)  
Tel. 055-88 11 71  
Fax 055-88 11 740

## Magyarország

Basys Magyarországi KFT  
Epitokutja 2-4  
H-2040 Budaörs  
Tel. 023-415 637-121  
Fax 023-415 182

## Norge

CableCom AS  
Østre Kullerød 5  
N-3214 Sandefjord  
Tel. 033-48 33 48  
Fax 033-44 60 44

## Malta

Mirage Holdings Ltd  
Flamingo Complex  
Cannon Road  
M-Qormi  
Tel. 49 71 82  
Fax 44 59 83

## Österreich

Robert Bosch AG  
Postfach 146  
A-1011 Wien  
Tel 01-79 72 24 500  
Fax 01-79 72 24 599

## Polsko

Piotech  
ul. Boh. Getta Warszawskiego 18  
PL-81-609 Gdynia  
Tel. 058 62 43 467  
Fax 58 62 45 009

## Portugal

Videoacustica  
Comercio e Representacoes de  
Equipamentos Electronicos S.A.  
Estrada Circunvalacao  
Quinto do Paizinho, arm. 5  
P-2795-632 Camaxide  
Tel. 21-42 41 770  
Fax 21-88 0 93

## Sverige

Canseda AB  
Amalia Jönssons Gata 19  
S-42131 Västra Frölunda  
Tel. 031-70 93 760  
Fax 031-47 65 15

## Slovenija

Jadran Trgovsko Podjetje  
Partizanska cesta 69  
SL-6210 Sezana  
Tel. 067-391 402  
Fax 067-391 400

## Turkey

Enkay Elektronik Servis Müdürlüğü  
Ambarlar Cad: No: 3/C  
Zeytinburmu / Istanbul  
Tel. 0212-582 36 69  
Fax 0212-671 80 39

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Subject to modification

# Codelist

|                      |      |      |      |      |      |      |      |      |      |
|----------------------|------|------|------|------|------|------|------|------|------|
| <b>Loewe</b>         |      |      |      |      |      |      |      |      |      |
| DVD-Player           |      |      |      |      |      |      |      |      | 0539 |
| DVD-Recorder         |      |      |      |      |      |      |      |      | 0741 |
| STB                  |      |      |      |      |      |      |      |      | 1127 |
| VCR                  |      |      |      |      |      |      |      |      | 0866 |
| <b>DVD</b>           |      |      |      |      |      |      |      |      |      |
| 3DLAB                |      |      |      |      |      |      |      |      | 0539 |
| A-Trend              |      |      |      |      |      |      |      |      | 0714 |
| Acoustic Solutions   |      |      |      |      |      |      |      |      | 0730 |
| AEG                  |      |      |      |      |      |      |      | 0788 | 0770 |
| Aiwa                 |      |      |      |      |      |      |      | 0641 | 0695 |
| Akai                 | 0790 | 0788 | 0690 | 0716 | 0713 |      |      |      | 0705 |
| AKI                  |      |      |      |      |      |      |      |      | 0718 |
| Akira                |      |      |      |      |      |      |      |      | 0699 |
| Alba                 | 0717 | 0699 | 0713 | 0723 |      |      |      |      | 0695 |
| All-Tel              |      |      |      |      |      |      |      |      | 0790 |
| Amitech              |      |      |      |      |      |      |      |      | 0770 |
| Amstrad              |      |      |      |      |      |      |      |      | 0713 |
| Apex Digital         |      |      |      |      |      |      |      |      | 0672 |
| Audiosonic           |      |      |      |      |      |      |      |      | 0690 |
| AWA                  |      |      |      |      |      |      |      |      | 0730 |
| Black Diamond        |      |      |      |      |      |      |      |      | 0713 |
| Blaupunkt            |      |      |      |      |      |      |      |      | 0717 |
| Blue Sky             | 0699 | 0695 | 0713 | 0672 | 0651 |      |      |      |      |
| Boman                |      |      |      |      |      |      |      |      | 0783 |
| Brain Wave           |      |      |      |      |      |      |      |      | 0770 |
| Brandt               |      |      |      |      |      |      |      | 0651 | 0551 |
| Bush                 | 0699 | 0690 | 0689 | 0717 | 0713 | 0818 |      |      |      |
|                      |      |      |      |      |      |      |      | 0695 | 0831 |
|                      |      |      |      |      |      |      |      |      | 0723 |
| C-Tech               |      |      |      |      |      |      |      |      | 0768 |
| Cambridge Audio      |      |      |      |      |      |      |      |      | 0696 |
| Cambridge Soundworks |      |      |      |      |      |      |      |      | 0696 |
| CAT                  |      |      |      |      |      |      |      |      | 0699 |
| Celestial            |      |      |      |      |      |      |      |      | 0672 |
| Centrex              |      |      |      |      |      | 0672 | 1004 |      |      |
| Centrum              |      |      |      |      |      |      |      |      | 0713 |
| cineULTRA            |      |      |      |      |      |      |      |      | 0699 |
| Classic              |      |      |      |      |      |      |      |      | 0730 |
| Clatronic            |      |      |      |      |      |      |      |      | 0788 |
| Clayton              |      |      |      |      |      |      |      |      | 0713 |
| Coby                 |      |      |      |      |      |      |      |      | 0730 |
| Conia                |      |      |      |      |      |      |      |      | 0672 |
| Crown                | 0770 | 0651 |      |      |      |      |      |      | 0690 |
| Cybercom             |      |      |      |      |      |      |      |      | 0831 |
| CyberHome            |      |      |      |      |      |      |      | 0714 | 0816 |
| Cytron               | 0716 | 0651 |      |      |      |      |      |      | 0705 |
| Daewoo               |      |      |      |      |      |      |      |      | 0770 |
| Daewoo International |      |      |      |      |      |      |      |      | 0705 |
| Dansai               |      |      |      |      |      |      |      |      | 0714 |
| Dantax               |      |      |      |      |      |      |      |      | 0699 |
| DEC                  |      |      |      |      |      |      |      |      | 0770 |
| Decca                |      |      |      |      |      |      |      |      | 0723 |
| Denon                |      |      |      |      |      |      |      |      | 0699 |
| Denver               |      |      |      |      |      |      |      |      | 0818 |
| Denzel               |      |      |      |      |      |      |      |      | 0770 |
| Diamond              |      |      |      |      |      |      |      |      | 0490 |
| Digihome             |      |      |      |      |      |      |      |      | 0634 |
| digiRED              |      |      |      |      |      |      |      |      | 0699 |
| Digitrex             |      |      |      |      |      |      |      |      | 0788 |
| DiK                  |      |      |      |      |      |      |      |      | 0665 |
| Dinamic              |      |      |      |      |      |      |      |      | 0723 |
| DiViDo               |      |      |      |      |      |      |      |      | 0713 |
| DK digital           |      |      |      |      |      |      |      |      | 0717 |
| DMTECH               |      |      |      |      |      |      |      |      | 0672 |
| Dragon               |      |      |      |      |      |      |      |      | 0831 |
| Dual                 | 0665 | 0651 | 0713 | 0730 | 0783 |      |      |      | 0790 |
|                      |      |      |      |      |      |      |      |      | 0831 |
| E-Boda               |      |      |      |      |      |      |      |      | 0723 |
| Eclipse              |      |      |      |      |      |      |      |      | 0723 |
| Electrohome          |      |      |      |      |      |      |      |      | 0770 |
| Elin                 |      |      |      |      |      |      |      |      | 0770 |
| Elta                 |      |      |      |      |      |      |      |      | 0770 |
| Elta                 | 0690 | 0770 | 0788 |      |      |      |      |      | 0790 |
| Emerson              |      |      |      |      |      |      |      |      | 0591 |
| Enzer                |      |      |      |      |      |      |      |      | 0705 |
| Ferguson             |      |      |      |      |      |      |      |      | 0665 |
| Finlux               |      |      |      |      |      |      |      |      | 0651 |
| Firstline            |      |      |      |      |      |      |      |      | 0741 |
| Funai                |      |      |      |      |      |      |      |      | 0770 |
| GE                   |      |      |      |      |      |      |      |      | 0783 |
| Global Solutions     |      |      |      |      |      |      |      |      | 0651 |
| Global Sphere        |      |      |      |      |      |      |      |      | 0695 |
| Go Video             |      |      |      |      |      |      |      |      | 0717 |
| GoldStar             |      |      |      |      |      |      |      |      | 0768 |
| Goodmans             | 0651 | 1004 | 0790 | 0690 | 0783 |      |      |      | 0768 |
|                      |      |      |      |      |      |      |      |      | 0783 |
|                      |      |      |      |      |      |      |      |      | 0591 |
|                      |      |      |      |      |      |      |      |      | 0741 |
|                      |      |      |      |      |      |      |      |      | 0783 |
|                      |      |      |      |      |      |      |      |      | 0818 |
|                      |      |      |      |      |      |      |      |      | 0665 |
| Graetz               |      |      |      |      |      |      |      |      | 0716 |
| Grandin              |      |      |      |      |      |      |      |      | 0790 |
| Grundig              | 0539 | 0695 | 0651 | 0775 | 0705 |      |      |      | 0790 |
|                      |      |      |      |      |      |      |      |      | 0723 |
|                      |      |      |      |      |      |      |      |      | 0713 |
|                      |      |      |      |      |      |      |      |      | 0670 |
| Grunkel              |      |      |      |      |      |      |      |      | 0770 |
| H&B                  |      |      |      |      |      |      |      |      | 0818 |
| Haaz                 |      |      |      |      |      |      |      |      | 0713 |
| Hanseatic            |      |      |      |      |      |      |      |      | 0768 |
|                      |      |      |      |      |      |      |      |      | 0741 |
| HCM                  |      |      |      |      |      |      |      |      | 0788 |
| HDT                  |      |      |      |      |      |      |      |      | 0705 |
| HE                   |      |      |      |      |      |      |      |      | 0770 |
| Henß                 |      |      |      |      |      |      |      |      | 0723 |
| Hitachi              |      |      |      |      |      |      |      |      | 0699 |
| Hiteker              |      |      |      |      |      |      |      |      | 0818 |
| Home Electronics     |      |      |      |      |      |      |      |      | 0664 |
| Hyundai              |      |      |      |      |      |      |      |      | 0665 |
| Ingelen              |      |      |      |      |      |      |      |      | 0573 |
| ISP                  |      |      |      |      |      |      |      |      | 0672 |
| Jeken                |      |      |      |      |      |      |      |      | 0730 |
| JMB                  |      |      |      |      |      |      |      |      | 0730 |
| JVC                  |      |      |      |      |      |      |      |      | 0783 |
| Karcher              |      |      |      |      |      |      |      |      | 0695 |
| Kendo                |      |      |      |      |      |      |      |      | 0699 |
| Kenwood              |      |      |      |      |      |      |      |      | 0695 |
| Kihiro               |      |      |      |      |      |      |      |      | 0623 |
| Kingavon             |      |      |      |      |      |      |      |      | 0539 |
| Kiss                 |      |      |      |      |      |      |      |      | 0503 |
| Koda                 |      |      |      |      |      |      |      |      | 1901 |
| Koss                 |      |      |      |      |      |      |      |      | 1940 |
| Lawson               |      |      |      |      |      |      |      |      | 0783 |
| Lecson               |      |      |      |      |      |      |      |      | 0699 |
| Lenco                |      |      |      |      |      |      |      |      | 0783 |
| Lenoxx               |      |      |      |      |      |      |      |      | 0699 |
| Lexia                |      |      |      |      |      |      |      |      | 0699 |
| LG                   |      |      |      |      |      |      |      |      | 0534 |
| Lifetec              |      |      |      |      |      |      |      |      | 0490 |
| Limit                |      |      |      |      |      |      |      |      | 0737 |
| Loewe                |      |      |      |      |      |      |      |      | 0718 |
| LogicLab             |      |      |      |      |      |      |      |      | 0770 |
| Logix                |      |      |      |      |      |      |      |      | 0818 |
| Lumatron             |      |      |      |      |      |      |      |      | 0665 |
| Luxman               |      |      |      |      |      |      |      |      | 0665 |
| Luxor                |      |      |      |      |      |      |      |      | 0818 |
| Magnavox             |      |      |      |      |      |      |      |      | 0651 |
| Magnex               |      |      |      |      |      |      |      |      | 0651 |
| Manhattan            |      |      |      |      |      |      |      |      | 0705 |
| Marantz              |      |      |      |      |      |      |      |      | 0768 |
| Mark                 |      |      |      |      |      |      |      |      | 0696 |
| Matsui               |      |      |      |      |      |      |      |      | 0699 |
| MBO                  |      |      |      |      |      |      |      |      | 0699 |
| MDS                  |      |      |      |      |      |      |      |      | 0699 |
| Medion               |      |      |      |      |      |      |      |      | 0699 |
| Memorex              |      |      |      |      |      |      |      |      | 0699 |
| Metz                 |      |      |      |      |      |      |      |      | 0699 |
| MiCO                 |      |      |      |      |      |      |      |      | 0699 |



| VCR                 |      |      |      |      |      |      |  |  |                          |
|---------------------|------|------|------|------|------|------|--|--|--------------------------|
| Adyson              |      |      |      |      |      |      |  |  | 0072                     |
| Aiwa                | 0307 | 0000 | 0209 | 0348 | 0352 |      |  |  | 0037                     |
|                     |      |      |      |      |      |      |  |  | 0041                     |
| Akai                | 0106 | 0315 | 0041 | 0352 |      |      |  |  | 0240                     |
| Akashi              |      |      |      |      |      |      |  |  | 0072                     |
| Akiba               |      |      |      |      |      |      |  |  | 0072                     |
| Akura               |      |      |      |      |      |      |  |  | 0072 0041                |
| Alba                | 0278 | 0072 | 0209 | 0352 | 0000 | 0315 |  |  |                          |
|                     |      |      |      |      |      |      |  |  | 0348 0081                |
| Allorgan            |      |      |      |      |      |      |  |  | 0240                     |
| Allstar             |      |      |      |      |      |      |  |  | 0081                     |
| Amstrad             |      |      | 0000 | 0278 |      |      |  |  | 0072                     |
| Anitech             |      |      |      |      |      |      |  |  | 0072                     |
| Ansonic             |      |      |      |      |      |      |  |  | 0000                     |
| Aristona            |      |      |      |      |      |      |  |  | 0081                     |
| ASA                 |      |      |      |      |      |      |  |  | 0037 0081                |
| Asuka               | 0072 | 0037 | 0081 | 0000 |      |      |  |  | 0038                     |
| Audiosonic          |      |      |      |      |      |      |  |  | 0278                     |
| AVP                 |      |      |      |      |      |      |  |  | 0352 0000                |
| AWA                 |      | 0037 | 0278 | 0642 |      |      |  |  | 0043                     |
| Baird               | 0106 | 0278 | 0104 | 0041 |      |      |  |  | 0000                     |
| Basic Line          |      |      | 0278 | 0209 |      |      |  |  | 0072                     |
| Bestar              |      |      |      |      |      |      |  |  | 0278                     |
| Black Diamond       |      |      |      |      |      |      |  |  | 0642 0278                |
| Black Panther       |      |      |      |      |      |      |  |  | 0278                     |
| Blaupunkt           |      |      | 1562 | 0226 |      |      |  |  | 0081                     |
| Blue Sky            | 0037 | 0209 | 0348 | 0072 | 0352 |      |  |  | 0278                     |
|                     |      |      |      |      |      |      |  |  | 0000                     |
| Bondstec            |      |      |      |      |      |      |  |  | 0072                     |
| Brandt              |      |      |      |      |      |      |  |  | 0041 0320                |
| Brandt Electronique |      |      |      |      |      |      |  |  | 0041                     |
| Brinkmann           |      |      |      |      |      |      |  |  | 0209 0348                |
| Bush                | 0072 | 0278 | 0315 | 0209 | 0352 |      |  |  | 0000                     |
|                     |      |      |      |      |      |      |  |  | 0348 0081                |
| Carena              |      |      |      |      |      |      |  |  | 0209 0081                |
| Carrefour           |      |      |      |      |      |      |  |  | 0045                     |
| Casio               |      |      |      |      |      |      |  |  | 0000                     |
| Cathay              |      |      |      |      |      |      |  |  | 0278                     |
| CGE                 |      |      |      |      |      |      |  |  | 0041 0000                |
| Cimline             |      |      |      |      |      |      |  |  | 0072 0209                |
| Clatronic           |      |      |      |      |      |      |  |  | 0072 0000                |
| Combitech           |      |      |      |      |      |      |  |  | 0352                     |
| Condor              |      |      |      |      |      |      |  |  | 0278                     |
| Crown               |      |      |      |      |      |      |  |  | 0278 0072                |
| Cyrus               |      |      |      |      |      |      |  |  | 0081                     |
| Daewoo              | 0278 | 0642 | 0209 | 0348 | 0352 |      |  |  | 0045                     |
| Dansai              |      |      |      |      |      |      |  |  | 0072 0278                |
| Daytron             |      |      |      |      |      |      |  |  | 0278                     |
| de Graaf            |      |      |      |      |      |      |  |  | 0042 0081 0104 0048      |
| Decca               | 0000 | 0041 | 0081 | 0067 | 0348 |      |  |  | 0209                     |
| Deitron             |      |      |      |      |      |      |  |  | 0278                     |
| Denko               |      |      |      |      |      |      |  |  | 0072                     |
| Diamant             |      |      |      |      |      |      |  |  | 0037                     |
| Domland             |      |      |      |      |      |      |  |  | 0209                     |
| Dual                |      |      |      |      |      |      |  |  | 0041 0081 0278 0000      |
| Dumont              |      |      |      |      |      |      |  |  | 0000 0081 0104           |
| Elbe                |      |      |      |      |      |      |  |  | 0278 0038                |
| Elcatech            |      |      |      |      |      |      |  |  | 0072                     |
| Elin                |      |      |      |      |      |      |  |  | 0240                     |
| Elsay               |      |      |      |      |      |      |  |  | 0072                     |
| Elta                |      |      |      |      |      |      |  |  | 0072 0278                |
| Emerson             |      |      |      |      |      |      |  |  | 0072 0045 0000           |
| ESC                 |      |      |      |      |      |      |  |  | 0278 0240                |
| Etzuko              |      |      |      |      |      |      |  |  | 0072                     |
| Fast                |      |      |      |      |      |      |  |  | 0897                     |
| Ferguson            |      |      |      |      |      |      |  |  | 0041 0320 0000 0278      |
| Fidelity            |      |      |      |      |      |      |  |  | 0000 0072 0240           |
| Finlandia           | 0104 | 0081 | 0042 | 0000 | 0048 |      |  |  | 0384                     |
| Finlux              |      |      |      |      |      |      |  |  | 0000 0081 0104 0042      |
| Firstline           | 0072 | 0209 | 0348 | 0043 | 0037 |      |  |  | 0045                     |
|                     |      |      |      |      |      |      |  |  | 0042 0278                |
| Fisher              |      |      |      |      |      |      |  |  | 0047 0104 0038           |
| Flint               |      |      |      |      |      |      |  |  | 0209                     |
| Frontech            |      |      |      |      |      |      |  |  | 0072                     |
| Fujitsu             |      |      |      |      |      |      |  |  | 0000                     |
| Funai               |      |      |      |      |      |      |  |  | 0000                     |
| Galaxi              |      |      |      |      |      |      |  |  | 0000                     |
| Galaxis             |      |      |      |      |      |      |  |  | 0278                     |
| GE                  |      |      |      |      |      |      |  |  | 0320                     |
| GEC                 |      |      |      |      |      |      |  |  | 0081                     |
| General Technic     |      |      |      |      |      |      |  |  | 0348                     |
| Genexxa             |      |      |      |      |      |      |  |  | 0104                     |
| Goldhand            |      |      |      |      |      |      |  |  | 0072                     |
| GoldStar            |      |      |      |      |      |      |  |  | 0037 0000                |
| Goodmans            | 0000 | 0072 | 0240 | 0278 |      |      |  |  | 0037                     |
|                     |      |      |      |      |      |      |  |  | 0081 0348 0209 0352 0642 |
| Graetz              |      |      |      |      |      |      |  |  | 0041 0104 0240           |
| Granada             | 0104 | 0048 | 0081 | 0240 | 0037 |      |  |  | 0226                     |
|                     |      |      |      |      |      |      |  |  | 0042 0000                |
| Grandin             |      |      |      |      |      |      |  |  | 0072 0037 0000 0278 0209 |
| Grundig             | 0081 | 0347 | 0226 | 0320 | 0348 |      |  |  | 0072                     |
| Haaz                |      |      |      |      |      |      |  |  | 0348 0209                |
| Hanimex             |      |      |      |      |      |      |  |  | 0352                     |
| Hanseatic           |      |      |      |      |      |      |  |  | 0037 0209 0278 0081 0038 |
| Harwood             |      |      |      |      |      |      |  |  | 0072                     |
| HCM                 |      |      |      |      |      |      |  |  | 0072                     |
| Hinari              | 0072 | 0209 | 0352 | 0041 | 0278 |      |  |  | 0240                     |
| Hisawa              |      |      |      |      |      |      |  |  | 0209 0352                |
| Hischito            |      |      |      |      |      |      |  |  | 0045                     |
| Hitachi             | 0042 | 0041 | 0000 | 0240 | 0081 |      |  |  | 0104                     |
|                     |      |      |      |      |      |      |  |  | 0384                     |
| Hornophone          |      |      |      |      |      |      |  |  | 0081                     |
| Hypson              |      |      |      |      |      |      |  |  | 0072 0209 0278 0352      |
| Imperial            |      |      |      |      |      |      |  |  | 0000 0240                |
| Ingersoll           |      |      |      |      |      |      |  |  | 0209 0240                |
| Inno Hit            |      |      |      |      |      |      |  |  | 0240 0278 0072           |
| Interbuy            |      |      |      |      |      |      |  |  | 0037 0072                |
| Interfunk           |      |      |      |      |      |      |  |  | 0081 0104                |
| Internal            |      |      |      |      |      |      |  |  | 0278                     |
| International       |      |      |      |      |      |      |  |  | 0278 0037                |
| Intervision         |      |      |      |      |      |      |  |  | 0000 0278 0037 0209 0348 |
| Irradio             |      |      |      |      |      |      |  |  | 0072 0037 0081           |
| ITT                 |      |      |      |      |      |      |  |  | 0106 0041 0384 0104 0240 |
| ITT Nokia           |      |      |      |      |      |      |  |  | 0048                     |
| ITV                 |      |      |      |      |      |      |  |  | 0278 0037                |
| JMB                 |      |      |      |      |      |      |  |  | 0209 0352                |
| Joyce               |      |      |      |      |      |      |  |  | 0000                     |
| JVC                 |      |      |      |      |      |      |  |  | 0041 0067 0384           |
| Kaisui              |      |      |      |      |      |      |  |  | 0072                     |
| Kambrook            |      |      |      |      |      |      |  |  | 0037                     |
| Karcher             |      |      |      |      |      |      |  |  | 0278                     |
| Kendo               | 0106 | 0209 | 0315 | 0348 | 0072 |      |  |  | 0037                     |
| Kenwood             |      |      |      |      |      |      |  |  | 0041 0038                |
| KIC                 |      |      |      |      |      |      |  |  | 0000                     |
| Kimari              |      |      |      |      |      |      |  |  | 0047                     |
| Kneissel            |      |      |      |      |      |      |  |  | 0352 0209 0348 0037      |
| Kolster             |      |      |      |      |      |      |  |  | 0209 0348                |
| Korpel              |      |      |      |      |      |      |  |  | 0072                     |
| Kuba                |      |      |      |      |      |      |  |  | 0047                     |
| Kuba Electronic     |      |      |      |      |      |      |  |  | 0047                     |
| Kuwa                |      |      |      |      |      |      |  |  | 0226                     |
| Kyoto               |      |      |      |      |      |      |  |  | 0072                     |
| Lenco               |      |      |      |      |      |      |  |  | 0278                     |
| Leyco               |      |      |      |      |      |      |  |  | 0072                     |
| LG                  |      |      |      |      |      |      |  |  | 0037 0000 0278           |
| Lifetec             |      |      |      |      |      |      |  |  | 0209 0348                |
| Loewe               |      |      |      |      |      |      |  |  | 0081 1562 0226 0866 0037 |
| Logik               |      |      |      |      |      |      |  |  | 0240 0072 0106 0209      |
| Lumatron            |      |      |      |      |      |      |  |  | 0278                     |
| Luxor               | 0106 | 0043 | 0072 | 0104 | 0047 |      |  |  | 0048                     |



|                   |      |      |      |      |      |                |                 |                   |            |      |      |           |                     |             |          |      |      |      |      |      |      |      |
|-------------------|------|------|------|------|------|----------------|-----------------|-------------------|------------|------|------|-----------|---------------------|-------------|----------|------|------|------|------|------|------|------|
| Tredex            |      |      |      |      | 0278 | Athena         |                 |                   |            |      | 0668 | Discovery |                     |             |          |      |      | 0668 | 0710 |      |      |      |
| Uher              |      |      |      | 0037 | 0240 | Atlanta        |                 |                   |            |      | 0871 | Diseqc    |                     |             |          |      |      |      | 0710 |      |      |      |
| Ultravox          |      |      |      |      | 0278 | Aurora         |                 |                   |            |      | 0879 | Distratel |                     |             |          |      | 0084 | 0885 | 1205 |      |      |      |
| Unitech           |      |      |      |      | 0240 | Austar         | 0863            | 0642              | 0497       | 0879 | 1176 | Distrisat |                     |             |          |      |      |      | 0200 |      |      |      |
| United Quick Star |      |      |      |      | 0278 | Avalon         |                 |                   |            |      | 0396 | DMT       |                     |             |          |      |      |      | 1075 |      |      |      |
| Universum         | 0000 | 0081 | 0240 | 0037 | 0106 | Axiel          |                 |                   |            |      | 0668 | 0710      | DNT                 |             |          |      |      | 0200 | 0396 |      |      |      |
|                   |      |      |      | 0348 | 0209 | 0104           | Axis            |                   |            |      | 1111 | 0834      | DREAM multimedia.TV |             |          |      |      |      | 1237 |      |      |      |
| Victor            |      |      |      |      |      | 0067           | Beko            |                   |            |      |      | 0455      | DStv                |             |          |      |      | 0642 | 0879 |      |      |      |
| Watson            |      | 0081 | 0352 | 0278 | 0642 | Bentley Walker |                 |                   |            |      |      | 1017      | Echostar            | 0610        | 1169     | 0871 | 0167 | 0853 | 1086 |      |      |      |
| Weltblick         |      |      |      |      |      | 0037           | Blaupunkt       |                   |            |      |      | 0173      |                     | 1200        | 0454     | 0396 | 0713 | 0668 | 0511 | 0453 |      |      |
| Yamaha            |      |      |      |      |      | 0041           | Blue Sky        |                   |            |      |      | 0713      | 0885                | Einhell     |          |      |      |      | 0132 | 0713 | 0501 |      |
| Yamishi           |      |      |      |      | 0072 | 0278           | Boca            |                   |            |      |      | 0132      | 0713                | Elap        |          |      | 0713 | 1129 | 0668 | 0710 |      |      |
| Yokan             |      |      |      |      |      | 0072           | Boston          |                   |            | 0132 | 0710 | 0668      | Elsat               |             |          |      |      |      |      | 0713 |      |      |
| Yoko              |      |      | 0037 | 0072 | 0240 | Broco          |                 |                   |            |      |      | 0713      | Elta                |             |          |      |      |      |      | 0200 |      |      |
| ZX                |      |      |      |      |      | 0209           | BskyB           |                   |            |      |      | 0847      | 1175                | Emme Esse   |          |      |      |      |      | 0871 |      |      |
|                   |      |      |      |      |      |                | BT              |                   |            |      |      | 0668      | 0710                | Engel       |          |      |      |      |      | 1017 | 0713 |      |
| <b>SAT (STB)</b>  |      |      |      |      |      |                | Bubu Sat        |                   |            |      |      |           | 0713                | EP Sat      |          |      |      |      |      |      | 0455 |      |
| @sat              |      |      |      |      |      | 1300           | Cambridge       |                   |            |      |      |           | 0501                | Eurieult    |          |      |      | 0084 | 0885 | 0882 |      |      |
| ABsat             |      |      | 0668 | 0123 | 1323 | 0710           | Canal Satellite |                   |            |      |      |           | 0853                | Eurocrypt   |          |      |      |      |      |      | 0455 |      |
| ADB               |      |      |      |      |      | 0642           | Canal+          |                   |            |      |      |           | 0853                | Europa      |          |      | 0863 | 0607 | 0501 | 0200 |      |      |
| Adcom             |      |      |      |      |      | 0200           | Cherokee        |                   |            |      | 0123 | 0710      | 1323                | Europhon    |          |      |      |      |      | 0299 | 0607 |      |
| AGS               |      |      |      |      | 0668 | 0710           | Chess           |                   |            | 0157 | 0605 | 0713      | 1085                | Eurosky     | 0607     | 0132 | 0299 | 0115 | 0114 | 0501 |      |      |
| Akai              |      |      |      |      |      | 0200           | CityCom         |                   |            | 1176 | 0115 | 0607      | 0299                | Eurostar    |          |      |      |      |      | 0607 | 0115 |      |
| Akena             |      |      |      |      |      | 0668           | Clemens Kamphus |                   |            |      |      | 0834      | 0396                | Fenner      |          |      | 0668 | 0157 | 0605 | 0713 |      |      |
| Alba              |      |      |      |      | 0455 | 0713           | Cobra           |                   |            |      |      |           | 0396                | Ferguson    |          |      |      |      |      |      | 0455 |      |
| Allsat            |      |      | 0200 | 1017 | 1043 |                | Columbia        |                   |            |      |      | 0668      | 0132                | Fidelity    |          |      |      |      |      |      | 0501 |      |
| Alltech           |      |      |      |      |      | 0713           | Columbia        |                   |            |      |      |           | 0132                | Finlandia   |          |      |      |      |      |      | 0455 |      |
| Alpha             |      |      |      |      | 0668 | 0200           | Columbus        |                   |            |      |      |           | 0668                | Finlux      |          |      |      |      |      | 0573 | 0455 |      |
| Altai             |      |      |      |      |      | 0396           | Comag           |                   |            |      |      |           | 0132                | Flair Mate  |          |      |      |      |      |      | 0713 |      |
| Amitronica        |      |      |      |      |      | 0713           | Condor          |                   |            |      |      |           | 0607                | Force       |          |      |      |      |      |      | 1101 |      |
| Ampere            |      |      |      |      |      | 0396           | 0132            | Connexions        |            |      |      |           | 0396                | Fortec Star |          |      |      |      |      | 1017 | 1083 |      |
| Amstrad           | 0847 | 0713 | 0742 | 0396 | 0132 | 0882           | Conrad          |                   |            | 0607 | 0573 | 0115      | 0501                | Foxtel      | 0879     | 0720 | 0455 | 0497 | 0795 | 1176 |      |      |
|                   |      |      | 0885 | 0863 | 0501 | 0795           | 1113            | Conrad Electronic |            |      |      |           | 0607                | 0713        | Fracarro |      |      |      |      |      | 0871 | 0668 |
| Anglo             |      |      |      |      |      | 0713           | Cryptovision    |                   |            |      |      |           | 0455                | 0795        | Freecom  |      |      |      |      |      | 0501 | 0173 |
| Ankaro            |      |      |      |      |      | 0713           | Cyrus           |                   |            |      |      |           | 0200                | Freesat     |          |      |      |      |      |      |      | 0882 |
| AntSat            |      |      |      |      |      | 1017           | 1083            | D-box             |            |      | 1127 | 1114      | 0723                | FTEmaximal  |          |      |      |      |      |      | 0713 | 0863 |
| Apollo            |      |      |      |      |      | 0455           | Daeryung        |                   |            |      |      |           | 0396                | Fuba        |          |      | 0396 | 0173 | 0573 | 0115 | 0299 |      |
| Arcon             |      |      | 1205 | 1043 | 0834 | 0132           | 1075            | Daewoo            |            |      |      | 1296      | 0713                | Fugionkyo   |          |      |      |      |      |      |      | 1105 |
| Armstrong         |      |      |      |      |      | 0200           | Delfa           |                   |            |      |      |           | 0863                | Galaxis     | 1111     | 1101 | 0834 | 0863 | 1176 | 0853 |      |      |
| Asat              |      |      |      |      |      | 0200           | Deltasat        |                   |            |      |      |           | 1075                | 0115        | 0879     |      |      |      |      |      |      |      |
| ASLF              |      |      |      |      |      | 0713           | DGTEC           |                   |            |      |      |           | 1242                | Garnet      |          |      |      |      |      |      |      | 1075 |
| AssCom            |      |      |      |      |      | 0853           | Digatron        |                   |            |      |      |           | 1294                | GF          |          |      |      |      |      |      | 0834 | 1043 |
| Astacom           |      |      |      |      | 0668 | 0710           | Digenius        |                   |            |      |      |           | 0299                | GF Star     |          |      |      |      |      |      |      | 1043 |
| Aston             |      |      |      |      |      | 1129           | Digitality      |                   |            |      |      |           | 0607                | GOD Digital |          |      |      |      |      |      |      | 0200 |
| Astra             |      |      |      |      |      | 0607           | 0713            | Digipro           |            |      |      |           | 1105                | Goldbox     |          |      |      |      |      |      |      | 0853 |
| Astro             | 0133 | 0173 | 0501 | 0658 | 0607 | 1113           | DigiQuest       |                   |            |      |      |           | 0863                | Goldvision  |          |      |      |      |      |      |      | 1017 |
|                   |      |      |      |      |      | 1099           | 1100            | 0200              | Discoverer |      |      |           | 0605                | 0157        | Gooding  |      |      |      |      |      |      | 0571 |

|                   |      |      |                  |      |      |      |      |      |            |      |      |      |      |      |      |      |  |  |      |
|-------------------|------|------|------------------|------|------|------|------|------|------------|------|------|------|------|------|------|------|--|--|------|
| Goodmans          | 1284 | 0455 | Labgear          |      |      |      |      | 1296 | OctalTV    |      |      |      |      |      |      |      |  |  | 1294 |
| Gradiente         |      | 0887 | LaSAT            | 0607 | 0115 | 0132 | 0157 | 0299 | Okano      |      |      |      |      |      |      |      |  |  | 0668 |
| Granada           |      | 0455 | Lenco            |      |      | 0713 | 0115 | 0607 | OnDigital  | 0751 | 0329 | 0241 | 0867 | 0133 |      |      |  |  |      |
| Grandin           |      | 0084 | Lenon            |      |      |      |      | 0501 | Optex      |      |      |      |      | 0834 |      |      |  |  |      |
| Grundig           | 0173 | 0847 | Lexus            |      |      |      |      | 0200 | Optus      |      |      |      |      | 0879 | 0853 |      |  |  |      |
|                   | 0750 | 0879 | LG               |      |      |      |      | 1075 | Orbitech   | 1099 | 1100 | 0200 | 0501 | 0157 |      |      |  |  |      |
| Hanseatic         |      | 0605 | Lifesat          |      |      | 0605 | 0299 | 1043 | Origo      |      |      |      |      | 0497 |      |      |  |  |      |
| Hänsel & Gretel   |      | 0132 | Logix            |      |      |      |      | 1017 | Ouralis    |      |      |      |      | 1205 |      |      |  |  |      |
| Hauptpage         |      |      | Lorenzen         | 0299 | 1294 | 0607 | 0742 | 0132 | Oxford     |      |      |      |      | 0668 |      |      |  |  |      |
| HDT               |      |      | Luxor            |      |      |      |      | 0573 | Pace       | 0455 | 0847 | 0887 | 1175 | 0241 | 0867 |      |  |  |      |
| Heliocom          |      |      | M&B1             |      |      |      |      | 0605 |            | 0123 | 1323 | 0791 | 0795 | 0720 | 0497 | 0200 |  |  |      |
| Helium            |      |      | Manata           |      |      |      |      | 0710 |            |      |      |      |      | 0853 | 0710 | 1423 |  |  |      |
| Hirschmann        | 0396 | 0882 | Manhattan        | 1083 | 0455 | 0710 | 0668 | 0834 | Packsat    |      |      |      |      |      |      |      |  |  | 0710 |
|                   | 0573 | 1085 | Marantz          |      |      |      |      | 0200 | Palcom     |      |      |      |      |      |      |      |  |  | 0299 |
| Hitachi           |      |      | Maspro           |      |      | 0750 | 0713 | 0173 | Palladium  |      |      |      |      | 0571 | 0501 |      |  |  |      |
| HNE               |      | 0742 | Matsui           |      |      |      | 0571 | 0710 | Palsat     |      |      |      |      | 0501 |      |      |  |  |      |
| Houston           |      | 0668 | Max              |      |      |      |      | 0607 | Panasat    |      |      |      |      | 0879 | 0615 |      |  |  |      |
| Humax             |      | 1176 | MB               |      |      |      |      | 0605 | Panasonic  |      | 0847 | 1104 | 0455 | 1320 |      |      |  |  |      |
| Huth              | 0132 | 0607 | Mediabox         |      |      |      |      | 0853 | Panda      |      | 0455 | 0607 | 0173 | 0834 |      |      |  |  |      |
| Hyundai           |      | 1011 | Mediacom         |      |      |      |      | 1206 | Patriot    |      |      |      |      | 0668 |      |      |  |  |      |
| ID Digital        |      |      | MediaSat         |      |      |      |      | 0501 | Philips    | 0200 | 1114 | 0853 | 0455 | 0750 | 0710 |      |  |  |      |
| Imex              |      | 0084 | Medion           |      |      |      | 0713 | 0299 |            |      | 0668 | 0571 | 0173 | 0133 | 1336 |      |  |  |      |
| Ingelen           |      | 0396 | Medison          |      |      |      |      | 0713 | Phonotrend |      |      |      |      | 0863 | 1017 | 1200 |  |  |      |
| International     |      |      | Mega             |      |      |      |      | 0200 | Pioneer    |      |      |      |      | 0329 | 0853 | 0352 |  |  |      |
| Interstar         |      | 1105 | Metronic         | 0713 | 1215 | 0084 | 0885 | 1205 | Planet     |      |      |      |      |      | 0871 | 0396 |  |  |      |
| Intervision       |      | 0628 | Metz             |      |      |      |      | 0173 | Polytron   |      |      |      |      |      |      | 0396 |  |  |      |
| Invideo           |      |      | Micro            |      |      | 0607 | 0501 | 0713 | Praxis     |      |      |      |      |      |      | 0511 |  |  |      |
| IRTE              |      | 0609 | Micro electronic |      |      |      |      | 0713 | Preisner   |      |      | 0132 | 0396 | 1101 | 1113 |      |  |  |      |
| Italtel           |      | 0871 | Micro Technology |      |      |      |      | 0713 | Premiere   | 0853 | 1114 | 1127 | 0723 | 1111 | 1176 |      |  |  |      |
| ITT Nokia         |      | 0573 | Micromaxx        |      |      |      |      | 0299 |            |      | 1195 | 1100 | 0249 | 0658 | 1435 |      |  |  |      |
| JOK               |      |      | Microtec         |      |      |      |      | 0713 | Primacom   |      |      |      |      |      | 1111 |      |  |  |      |
| JVC               |      | 0571 | Minerva          |      |      |      |      | 0571 | Profile    |      |      |      |      |      | 0668 | 0710 |  |  |      |
| K-SAT             |      | 0713 | Mitsubishi       |      |      |      |      | 0455 | Promax     |      |      |      |      |      | 0455 |      |  |  |      |
| Kamm              |      | 0713 | Morgan's         |      |      | 0200 | 0713 | 0132 | Prosat     |      |      |      |      |      | 0628 |      |  |  |      |
| Kaon              |      | 1300 | Motorola         |      |      |      |      | 0856 | Prosonic   |      |      |      |      |      | 0742 |      |  |  |      |
| KaTelco           |      | 1111 | Multichoice      |      |      |      | 0642 | 0879 | Pye        |      |      |      |      |      | 0571 |      |  |  |      |
| Kathrein          | 0658 | 0249 | Multitec         |      |      |      |      | 0157 | Pyxis      |      |      |      |      |      | 0834 |      |  |  |      |
|                   | 0713 | 0668 | Myryad           |      |      |      |      | 0200 | Quadral    |      | 0628 | 0668 | 0710 | 1323 |      |      |  |  |      |
| Kathrein Eurostar |      |      | Mysat            |      |      |      |      | 0713 | Quelle     |      |      |      | 0607 | 0742 | 0115 |      |  |  |      |
| Kiton             |      |      | Netgem           |      |      |      |      | 1322 | Radiola    |      |      |      |      |      | 0200 |      |  |  |      |
| Klap              |      | 0668 | Neuhaus          |      |      | 0501 | 0713 | 0834 | Radix      |      |      |      | 0396 | 1113 | 0882 |      |  |  |      |
| Konig             |      |      | Neusat           |      |      |      |      | 0713 | RFT        |      |      |      |      |      | 0200 |      |  |  |      |
| Koscom            |      | 0834 | Nikko            |      |      |      |      | 0713 | Roadstar   |      |      |      |      |      | 0713 |      |  |  |      |
| Kreiling          |      | 0658 | Nokia            | 1023 | 1114 | 0751 | 1127 | 0723 | Rover      |      |      |      |      |      | 0628 | 0713 |  |  |      |
| Kreiselmeyer      |      |      |                  | 0573 | 1223 | 0455 | 1723 | 1310 | Saba       |      | 0710 | 0885 | 0115 | 0607 |      |      |  |  |      |
| Kyostar           |      |      | Nordmende        |      |      |      |      | 0455 | Sabre      |      |      |      |      |      | 0455 |      |  |  |      |
| L&S Electronic    |      | 1043 | Nova             |      |      |      |      | 0879 | Sagem      |      |      |      | 0820 | 1114 | 1253 |      |  |  |      |

Samsung 0863 1243 1343 0853 1206 1017  
 1293 1292  
 SAT 0501  
 Sat Control 1300  
 Sat Partner 0501  
 Sat Team 0713  
 Satcom 0605 0607  
 Satec 0713 0834  
 Satline 0628  
 Satstation 1083  
 Schneider 0710 0668 0157 1206  
 Schwaiger 0605 0157 0607 0885 1111  
 0132 1075  
 SCS 0115 0299  
 Seemann 0396  
 SEG 0605 0742 0114 1087  
 Seleco 0871  
 Septimo 1205 0885  
 Siemens 0173  
 Skantin 0713  
 Skinsat 0501  
 SKR 0713  
 Sky 0847 0856 0887 1014  
 SKY+ 1175  
 Skymaster 0713 0605 0157 1200 1085 1075  
 0628  
 Skymax 0200  
 SkySat 0157 0605 0713  
 SL 0132 0742  
 SM Electronic 0157 0713 1200 1075 1085  
 Smart 0132 0299 1101 0882 0396 1113  
 0115 0713  
 Sony 0282 0847 0853 0455  
 SR 0132  
 Starland 0713  
 Strong 0879 0853 1105 1159 1300  
 Sunsat 0713  
 Sunstar 0132  
 Tantec 0455  
 Tatung 0455  
 Teac 1322  
 Tecatel 1200  
 TechniSat 0200 1099 1100 1195 0501 1322  
 Technosat 1206  
 Technowelt 0607 0885  
 Techsan 1017  
 Techwood 0114

Telasat 0605 0115 0607  
 Tececiel 1043  
 Telecom 0713  
 Telefunken 0710  
 Teleka 0396 0750 0501 0607 0834  
 Telesat 0605 0607  
 Telesat 0501 1099 1100 0114 0200 0157  
 Teletech 0114  
 Teledes 0455 0501 0132  
 Thomson 0455 0713 0853 0115 0607 1291  
 0820 0668 0710 1046  
 Thorn 0455  
 Tokai 0200  
 Tonna 0455 0668 0501 0713 0834  
 Topfield 1206  
 Toshiba 0455  
 TPS 0820 1253  
 Triasat 0501  
 Triax 0501 0115 0200 0396 0713 0853  
 0114 1296 1291 0132  
 Turnsat 0713  
 Twinner 0132 0713  
 UEC 0879  
 Uher 0157  
 Unisat 0200  
 Universum 0173 0571 0607 0299 0115  
 0742 1087  
 Van Hunen 0299  
 Variosat 0173  
 Ventana 0200  
 Vestel 0742  
 VH-Sat 0299  
 Viasat 1323 1023 0820  
 Visionic 1105  
 Visiosat 0710 0713  
 Wetekom 0157 0605 0501  
 Wewa 0455  
 Wisi 0173 0396 0299 0455 0501 0607  
 0834  
 Worldsat 0710 0114 0123 0668  
 XCOM 0123 0668  
 XSat 0668 0713 0123  
 Xtreme 1300  
 YES 0887  
 Zehnder 1075 0742 0114 0115 0419  
 Zenith 0856  
 Zeta Technology 0200  
 Zinwell 1176

#### Cable Box (STB)

Austar 0276  
 BT 0003  
 Canal Plus 0443  
 Comcrypt 0443  
 Decsat 0423  
 Filmnet 0443  
 France Telecom 0817  
 General Instruments 0276  
 Jerrold 0003 0276  
 Kabelvision 0003  
 Macab 0817  
 Melita 0003  
 MNet 0443  
 Mr Zapp 0817  
 Noos 0817  
 NTL Cabletell 0276  
 Ono 1068  
 Optus 0276 1060  
 Pace 1068 1060  
 Philips 0817 0286  
 PVP Stereo Visual 0003  
 Sagem 0817  
 Tele+1 0443  
 Telepiu 0443  
 Tudi 0286  
 United Cable 0003  
 Visiopass 0817

